INVESTMENT CLIMATE BRIEF
PROVINCE OF BRITISH COLUMBIA
CANADA

Province of
British Columbia

Ministry of
Regional
Development

HONOURABLE ELWOOD V. VEITCH, MINISTER

INVESTMENT CLIMATE BRIEF

PROVINCE OF BRITISH COLUMBIA

CANADA

Prepared by:
Business Development and Investment Branch
Business Development Division
British Columbia Ministry of Regional Development
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WHY YOU SHOULD KNOW ABOUT BRITISH COLUMBIA

British Columbia is the only Canadian province on the Pacific Rim - the world's most dynamic economic region - and is strategically positioned to play a leading role in this arena. British Columbia's potential is readily apparent:

* Easy, economical access to the $700 billion market of the United States' west coast, enhanced by the Canada - U.S. Free Trade Agreement;
* An ideal springboard to the $3 trillion Asia Pacific market;
* Modern, efficient bulk cargo and container deep sea ports, and excellent industrial tidewater sites;
* Cheap, abundant energy - easily the cheapest in the Pacific Northwest, and some of the least expensive in Canada;
* A rich endowment of productive forest, mineral, and marine resources;
* Internationally competitive labour costs and productivity;
* Harmonious industrial relations in both secondary manufacturing and services;
* A pool of highly qualified and creative people, sophisticated research and higher education institutions, and innovative companies;
* Low corporate tax rates;
* One of North America's most livable regions;
* Stable government committed to fostering an attractive, free enterprise business climate.

WHO SHOULD READ THIS BRIEF

* Corporations seeking opportunities for new plant sites, new sources of material supply, expansion or diversification through direct investment, joint venture, or acquisition;
* Corporate managers and business advisors involved in strategic planning;
* Investors and business immigrants interested in investment opportunities.

WHAT THIS BRIEF DOES

* Offers a strategic overview of British Columbia's business environment and the dynamics of economic change;
* Helps the user carry out an initial assessment of British Columbia as a place to do business compared to other selected regions of North America.

FOR MORE HELP

The Ministry of Regional Development, in co-operation with the Ministry of International Business and Immigration, works to encourage new investment in all regions of British Columbia. We can provide the information to help you evaluate an investment in the province, introduce you to key contacts in business and government, and put you in touch with potential joint venture partners.

You can contact us directly in British Columbia, or through the overseas offices of the Ministry of International Business and Immigration:

Ministry of Regional Development
Director of Business Development and Investment
Parliament Buildings,
Victoria, British Columbia
V8V 1X4
Telephone: (604) 660-0277
Facsimile: (604) 356-8035

Ministry of International Business and Immigration

California:

Suite 1050
2600 Michelson Drive
Irvine, California
92715-1550
Telephone: (714) 852-0201
Facsimile: (714) 852-0168

London, England:

c/o No. 1 Regent Street
London, England
SW1Y 4NS
Telephone: (011-44-1) 930-6857
Facsimile: (011-44-1) 930-2012

Hong Kong:

901 Hutchison House
10 Harcourt Road
Hong Kong
Telephone: (011-852-5) 845-1155
Facsimile: (011-852-5) 845-4114

Tokyo, Japan:

Province of British Columbia
Canadian Representative Office
3F, No. 8 Yoshida Building
27-26 Minami Aoyama 2-chome
Minato-ku, Tokyo 107, Japan
Telephone: (03) 408-6171
Facsimile: 011-81-3-408-6340

Dusseldorf, Federal Republic of Germany:

c/o Canadian Consulate General
Immermannhof 8, 3rd Floor
Immermannstrasse 65d
4000 Dusseldorf 1
Federal Republic of Germany
Telephone: (011-49-211) 35 34 71
Facsimile: (011-49-211) 36 32 07

Seoul, Republic of Korea:

c/o Canadian Embassy
P.O. Box 6299
Kolon Building
45 Mugyo-Dong
Jung-Ku, Seoul 100
Republic of Korea
Telephone: (011-82-2) 753-2605
Facsimile: (011-82-2) 755-0686

Singapore:

5 Shenton Way 11-08
United Industrial Corporation Building
Singapore 0106
Telephone: (011-65) 221-0771
Facsimile: (011-65) 222-5242

Backdrop

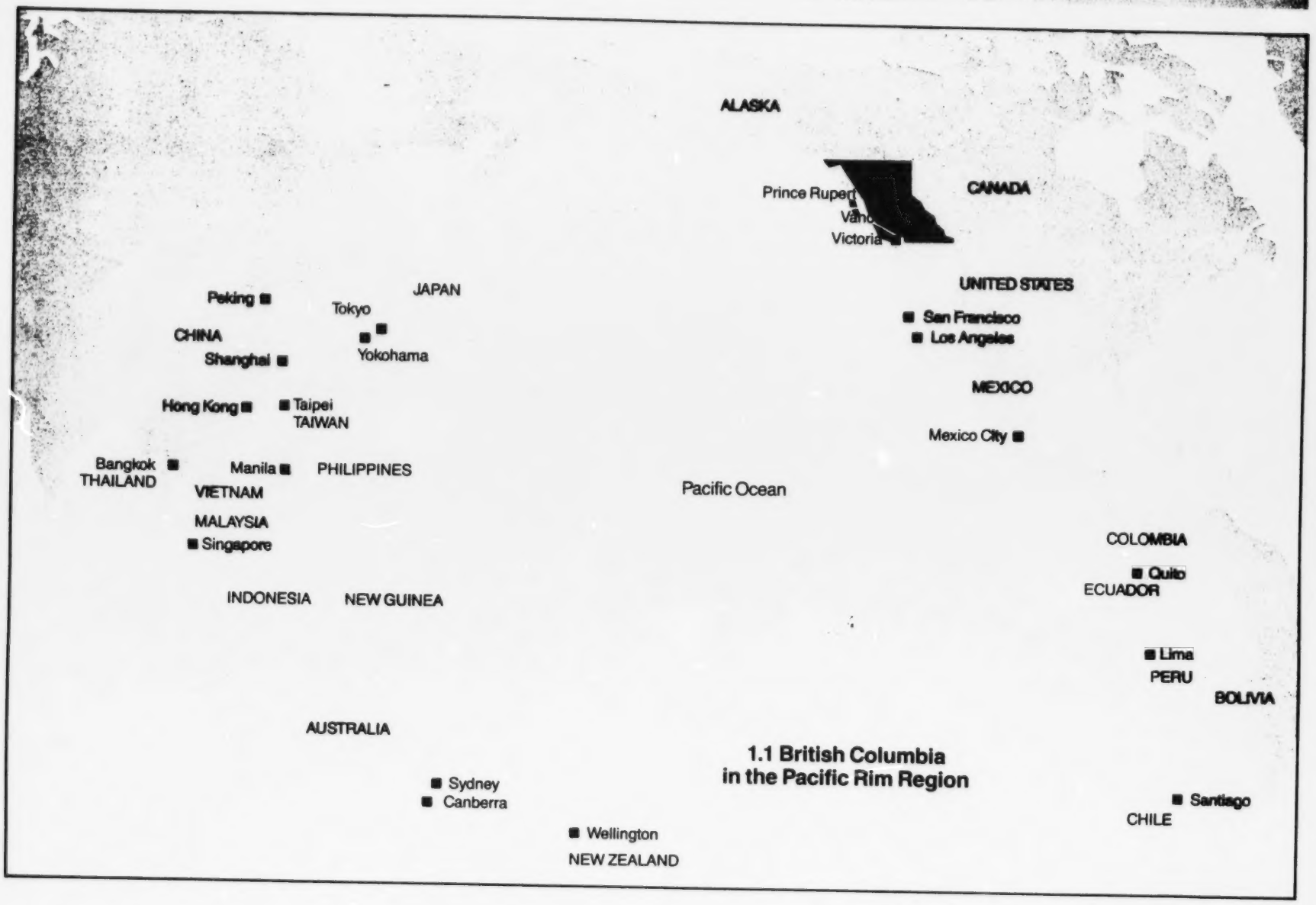
Geographically, British Columbia is part of the Pacific Northwest region of North America (see Figure 1.1). The province's natural economic affinities are with its American west coast neighbours - Washington State, Oregon, California and Alaska - and the Asia Pacific countries.

The population of 3 million lives mainly in the southwest corner of the province. Most British Columbians are of European descent, but there are several distinct ethnic communities of predominantly Asian origins, as well as aboriginal peoples. English is the first language of the overwhelming majority.

The province is one of the most popular destinations for domestic migrants and foreign immigrants to Canada. This inflow brings many new talents and skills to an already considerable pool. The quality and versatility of human resources are the key to prosperity in a modern economy.

British Columbians enjoy a high standard of living from a competitive, export-driven economy. Forestry, mining and fishing are still the leading earners of export revenue, but most new jobs in the export sector are being created in knowledge intensive secondary manufacturing and services. This transition marks a new phase of economic maturity and opportunity for British Columbia.

Figure 1.2 shows the regional framework for administration, service delivery and economic development under British Columbia's decentralization initiative.



1.1 British Columbia in the Pacific Rim Region

2. ECONOMIC OVERVIEW

British Columbia is one of Canada's most successful provincial economies. The province's annual growth rate, measured by real gross domestic product (GDP), averaged 7.9 per cent between 1961 and 1971, and 5.8 per cent between 1971 and 1981 (Figure 2.1). This performance placed British Columbia second among the ten provinces in both decades.

The severe global recession of 1981-82 and the sluggish recovery of demand and prices for British Columbia's major exports - forest and mineral products - dramatically slowed the province's growth rate. In 1986 and 1987 the economy bounced back and is on course to finish the decade with another strong performance. Key provincial economic indicators for the period 1983-87 are presented in Figures 2.2.1-4

British Columbia has been receiving favourable reviews recently from private sector observers of the provincial economic scene.

"The future for British Columbia is very bright. We've gone through a period of restructuring and now we're beginning to see diversified industries leading the way to new growth..."

Richard Allen,
Chief Economist, B.C. Central Credit Union

"The labour climate in British Columbia has matured considerably in recent years. There's a greater awareness of the role international competition plays in our economy."

James Matkin,
President and CEO, Business Council of British Columbia

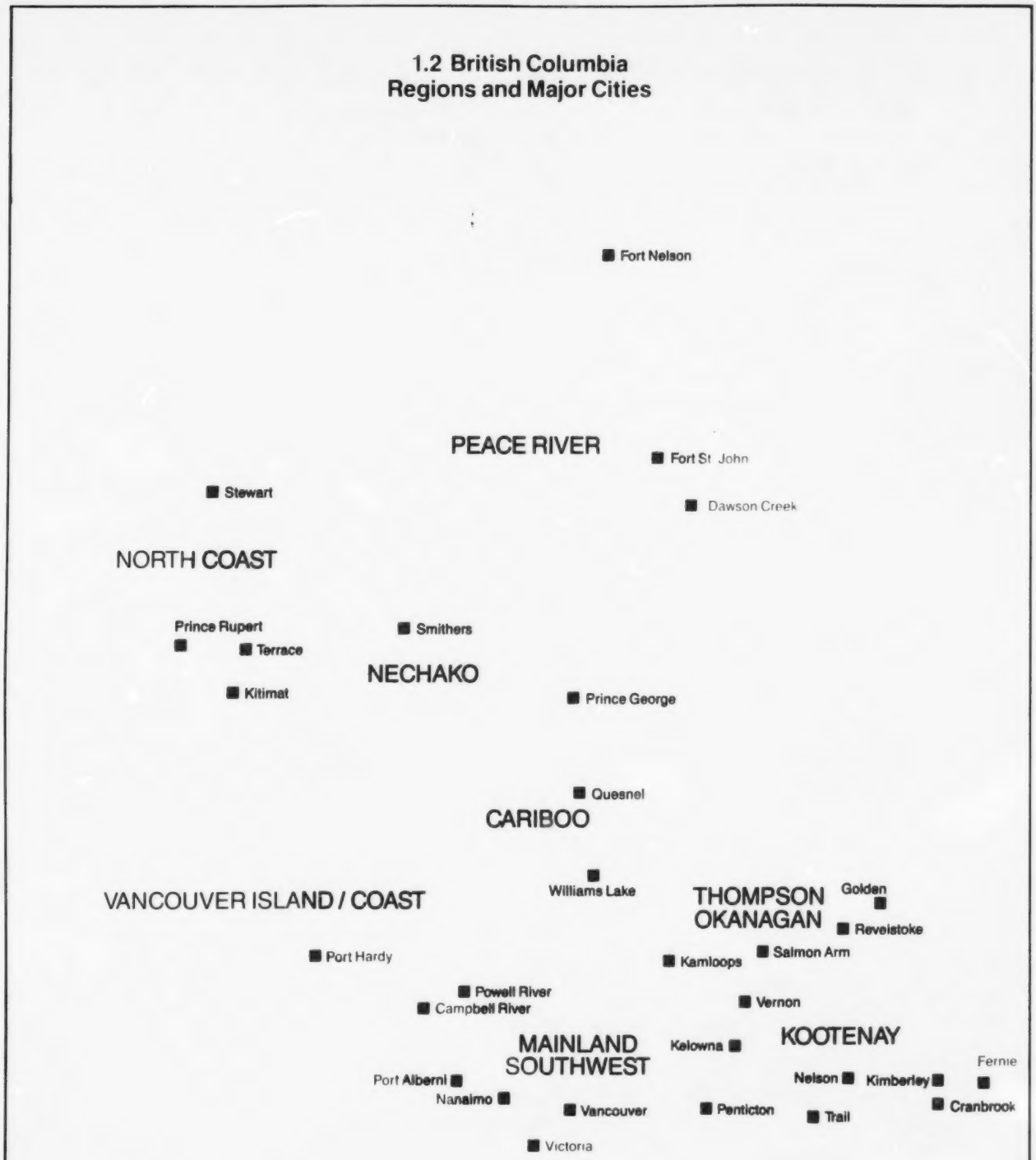
"B.C. is a high tech frontier that has an excellent work and recreational environment...well developed educational facilities and well developed transportation facilities to support exports to the Pacific Rim."

Mervyn R. Cronie,
Vice-President, Boeing Aircraft Company

"We moved here form the U.S. because we found the environment to be far more progressive and cooperative...it's easy to attract highly skilled people here from all over the world."

D. Keith Gilding,
President, Mitral Medical International Inc.

1.2 British Columbia
Regions and Major Cities



"British Columbia could be the only major Canadian government to record a budget surplus this year...

British Columbia has benefitted from the highest business capital spending growth rate of any province in Canada over the past two years.

Major wage agreements in the private sector in the last two years were settled on internationally competitive terms with almost no work stoppages.

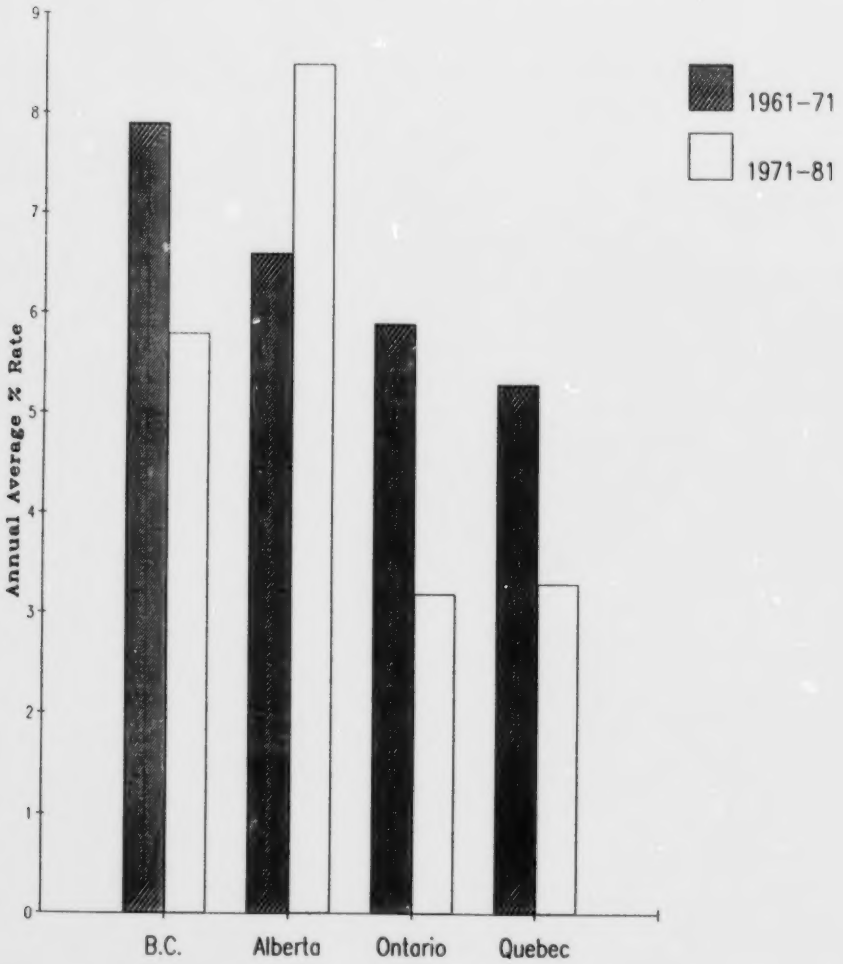
Significant diversification is taking place in British Columbia's economic base.

We expect the 1990's to be a decade of strong growth for the British Columbia economy."

Investment Dealers Association of Canada
February 1989 report

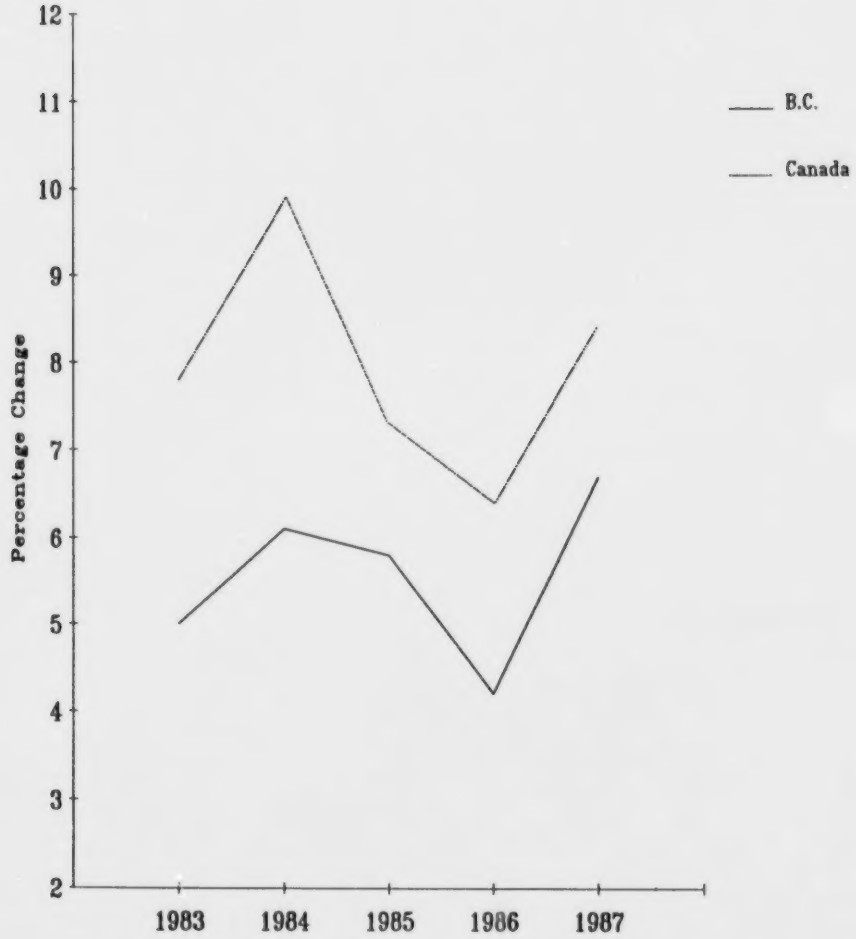
This optimism about British Columbia's prospects is well founded. Productivity gains and moderate wage increases are being sustained well into the upswing in the current economic cycle, demand for the province's major exports is holding firm, and non-traditional industries - electronics, software, aerospace, ocean engineering, aquaculture - are growing strongly.

Figure 2.1 Real GDP Growth - Selected Provinces



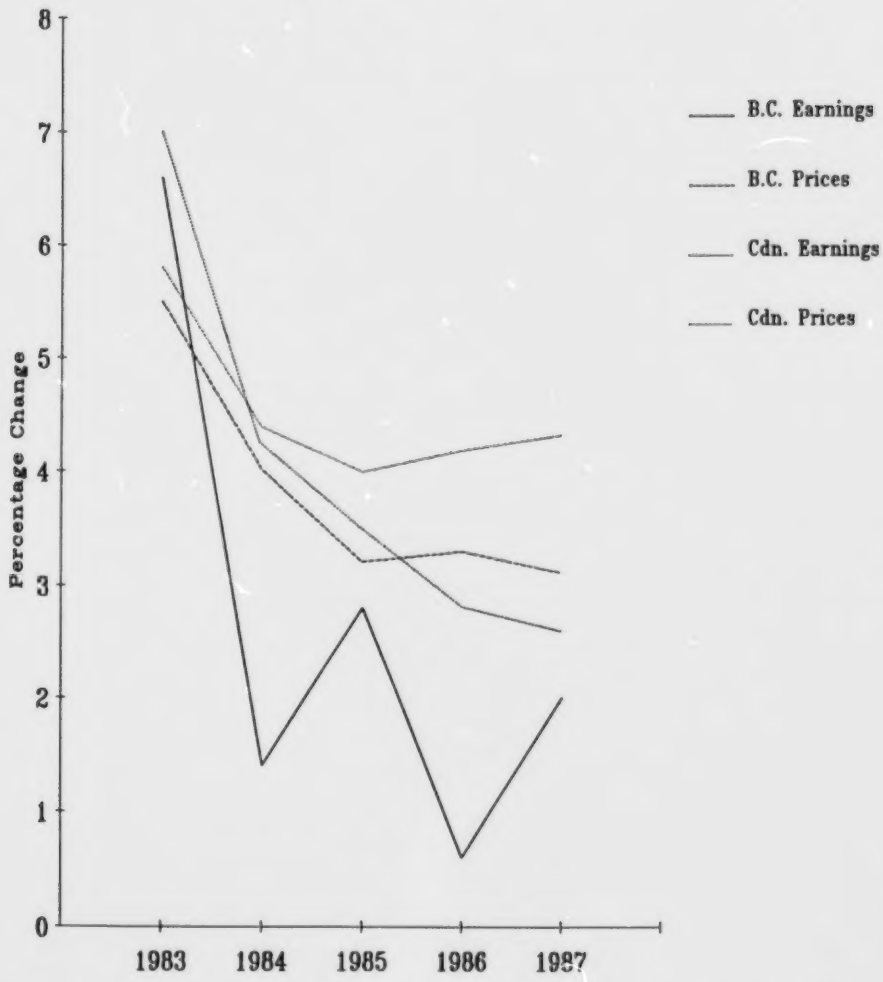
Source: Statistics Canada

Figure 2.2.1 Performance Indicators
Gross Domestic Product



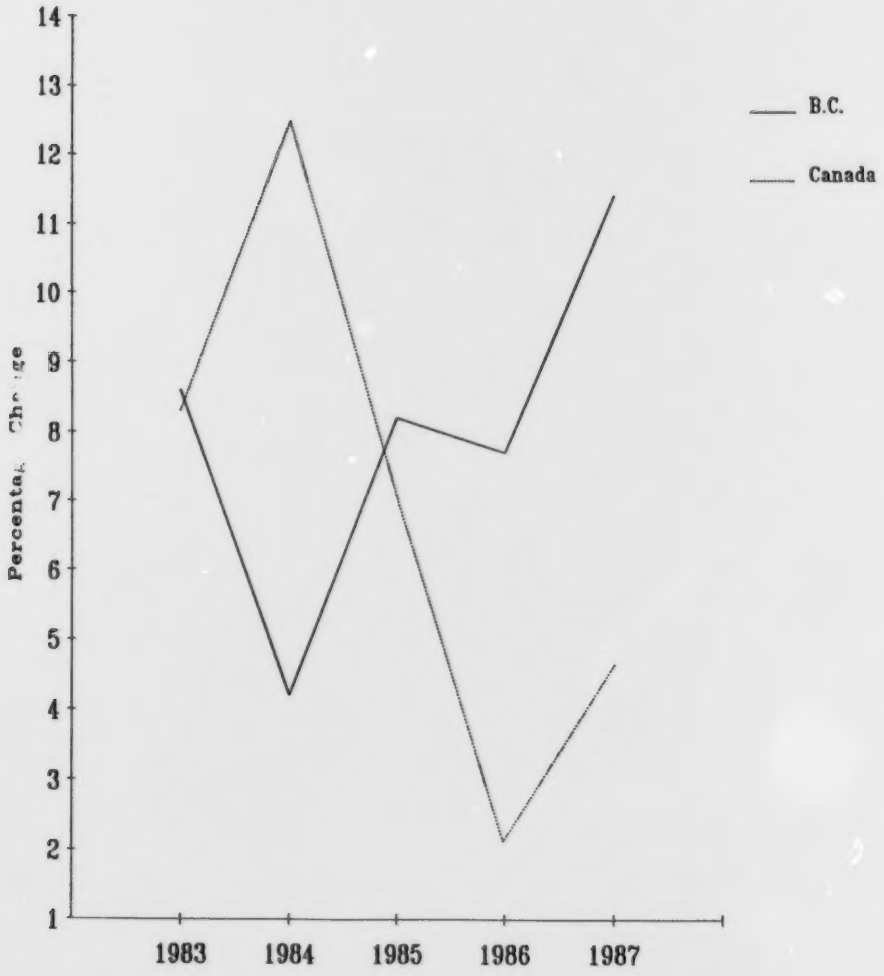
Source: Statistics Canada

Figure 2.2.2 Performance Indicators
Earnings and Prices



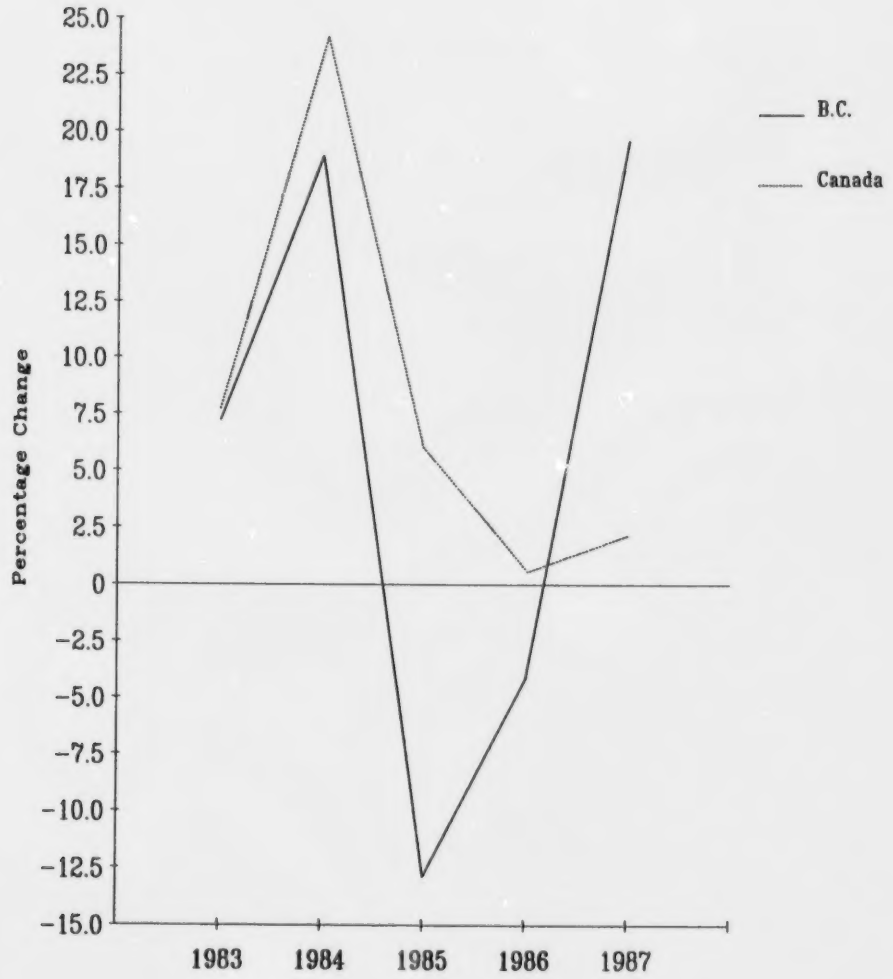
Source: Statistics Canada

Figure 2.2.3 Performance Indicators
Manufacturing Shipments



Source: Statistics Canada

Figure 2.2.4 Performance Indicators
Exports



Source: Statistics Canada

Traditional Industries

Resource processing and manufacturing industries - forest products, minerals, energy, and fish products - have been British Columbia's traditional source of economic strength. These industries are capital intensive, contributing 53 per cent of goods produced in the provincial economy with 45 per cent of the employed work force (Figures 2.3 and 2.4). Together they earn about 90 per cent of British Columbia's export revenue (Figure 2.5).

Forest Products

The province accounts for approximately 60 per cent of Canada's softwood lumber exports and 30 per cent of pulp and paper exports. The U.S. is the major customer for the province's lumber, followed by Japan. Pulp and paper exports are divided more evenly among the U.S., Japan and the European Community. Other wood products include plywood, shakes and shingles, veneers, and newsprint.

Higher value added products - specialty grades of lumber and paper, manufactured housing, furniture components - and the exploitation of underutilized species, for example, manufacturing pulp from aspen, offer new investment opportunities.

The industry employs 26 per cent of the provincial workforce (86,000) and produces 28 per cent of total goods output ($4.5 billion in 1986). Continuing automation will further reduce the industry's overall labour requirements.

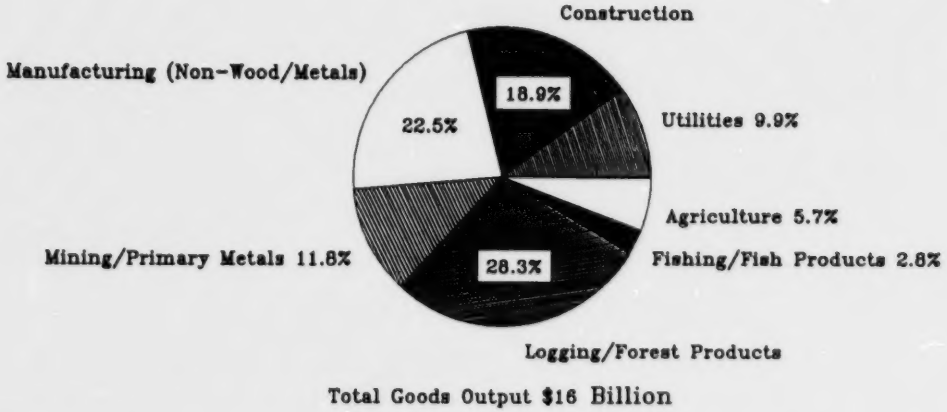
Mining and Mineral Processing

The mining sector employs about 11 per cent of British Columbia's workers in the goods producing industries (35,000) and contributes approximately 12 per cent of the total output of goods ($1.9 billion in 1986).

The province produces approximately 75 per cent of Canada's coal exports. Major customers are the Japanese and U.S. steel industries. British Columbia accounts for about half of the nation's copper concentrate, 40 per cent of its lead, and is the country's only molybdenum producer.

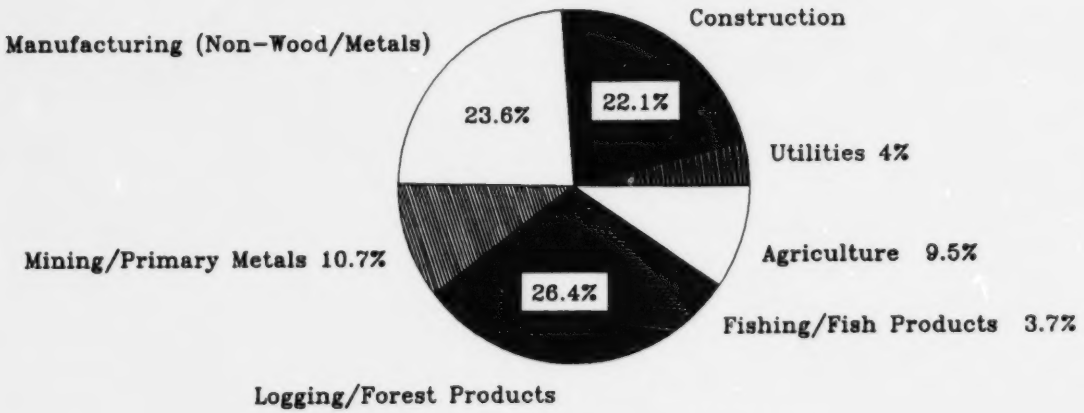
Sluggish demand for coal and metallic minerals has limited new mining developments in recent years, but there is on-going exploration activity, with particular interest in small, high grade ore deposits and high quality anthracite.

Figure 2.3 GDP by Sector – Goods Industries
British Columbia 1986



Source: BC Ministry of Regional Development

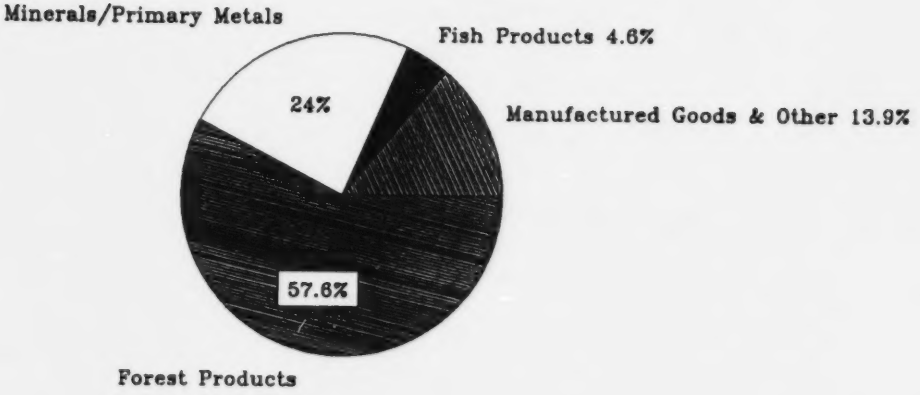
Figure 2.4 Employment by Sector
Goods Industries
British Columbia 1987



Total Goods Employment 323,000

Source: BC Ministry of Regional Development/Statistics Canada

Figure 2.5 Exports by Category
British Columbia 1987



Total Exports $16 Billion

Source: BC Ministry of Regional Development

Energy

Energy production contributes approximately 10 per cent of provincial goods output ($1.5 billion in 1986). British Columbia ranks third nationally in hydroelectricity generation and second in natural gas production. The province is a net importer of oil, mainly from neighbouring Alberta. Electricity and natural gas are exported to the U.S. Potential exists for increased natural gas exports and petrochemical production from natural gas.

Fish Products

British Columbia is a major world exporter of canned and frozen salmon, and is developing as an important producer of farmed salmon. The traditional component of the fishing industry contributes about 3 per cent of output ($450 million in 1986) and 4 per cent of employment in the goods producing sector. Although the province's aquaculture industry is relatively small at present, rapidly growing demand, good market access, a superb marine environment, and the entry of top international aquaculture firms, point to a bright future for fish farming.

The New Economy

Although the province's economic performance still relies a good deal on the strength of its resource-based industries, there is a rapidly growing "new economy" based on knowledge intensive secondary manufacturing and services, tourism, aquaculture, film, and fashion clothing. These industries are helping to diversify the economy and are the main sources of export related employment growth.

Knowledge Industries

The industries that are leading this diversification trend are export-oriented secondary manufacturing and service industries producing high value, technically sophisticated products. Electronics, telecommunications, robotics, aerospace, ocean engineering, and computer software are the key industries, contributing an estimated $1 billion to provincial output and employing a highly trained workforce of approximately 12,000.

The rapid growth of this sector demonstrates the quality of applied scientific and engineering talent that resides in British Columbia's business community and higher education institutions, and the attractiveness of the province's business environment to high technology enterprises.

Tourism

Tourism recently displaced mining as British Columbia's second largest industry. About 60 per cent of tourism revenues are earned from non-residents of the province, mainly visitors from the U.S. and other Canadian provinces.

There is considerable potential for increased international tourism. British Columbia's superb tourist amenities and spectacular scenery were given wide exposure during the 1986 World's Fair in Vancouver, and favourable exchange rates for U.S., Japanese, and European vacationers make the province an attractive destination.

Business and Financial Services

Vancouver, British Columbia's economic hub, has considerable depth and sophistication in business services, and is developing its position as a major centre of trade, finance, and investment in the Pacific Rim.

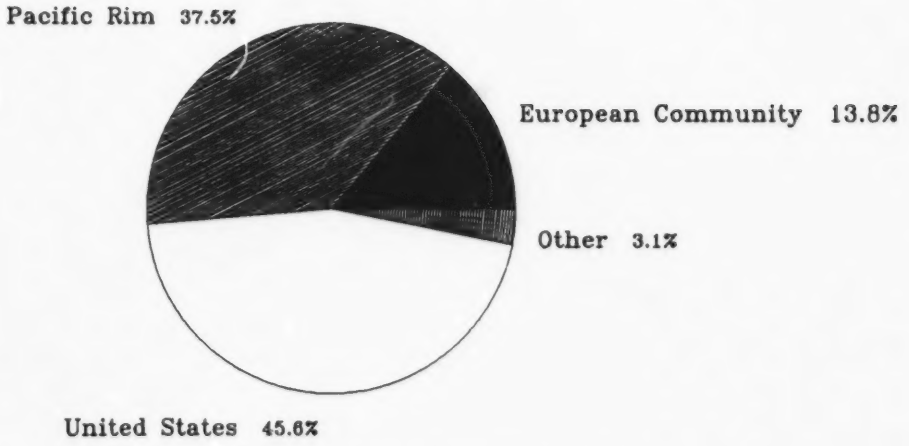
The province is well served by Canada's highly developed branch banking system. Regional head offices in Vancouver have considerable industry-specific knowledge and international trade expertise. The five major domestic banks - the Royal Bank, Bank of Montreal, Toronto Dominion Bank, Canadian Imperial Bank of Commerce, the Bank of Nova Scotia - and thirty three foreign-owned banks operate in British Columbia. The Hong Kong-Shanghai Bank, one of Asia's leading financial institutions, has its Canadian headquarters in Vancouver.

The federal government, which regulates banking, recently approved a provincial initiative to establish Vancouver as an International Financial Centre. This will allow designated institutions to conduct international financial business in a deregulated environment with certain tax advantages. Legislation has been passed and the initiative is currently being implemented.

The provincially regulated Vancouver Stock Exchange (VSE), Canada's third largest, is an important North American source of risk capital for start-up ventures in the high technology sector, and is beginning to move into the Asia Pacific market. New VSE financings in 1987 exceeded $1.3 billion. Entrepreneurs and investors have access to top national and international firms providing brokerage, accounting, tax, legal, and management services.

Vancouver has the distinction of being one of only seven International Arbitration Centres in the world, confirming the city's status as a centre of international trade. Agreements to provide arbitration services currently are in place with the U.S., Japan, and Australia.

Figure 3.1 Exports to Major Trading Partners
British Columbia 1987



Total Exports $15.9 Billion

Source: BC Ministry of Regional Development

3. MARKETS

British Columbia is part of a large North American consumer and industrial market which includes Canada's four western provinces and the west coast of the United States - 40 million people within two day's trucking of Vancouver (Figure 3.2). It is also a strategic springboard to the vast potential of the Asia Pacific region. The economic dimensions of these markets are shown in Table 3.1. Other international markets are important to British Columbia, but the Pacific Rim represents the faster growing outlet for the province's exports because of greater accessibility and natural complementarity.

The North American Market

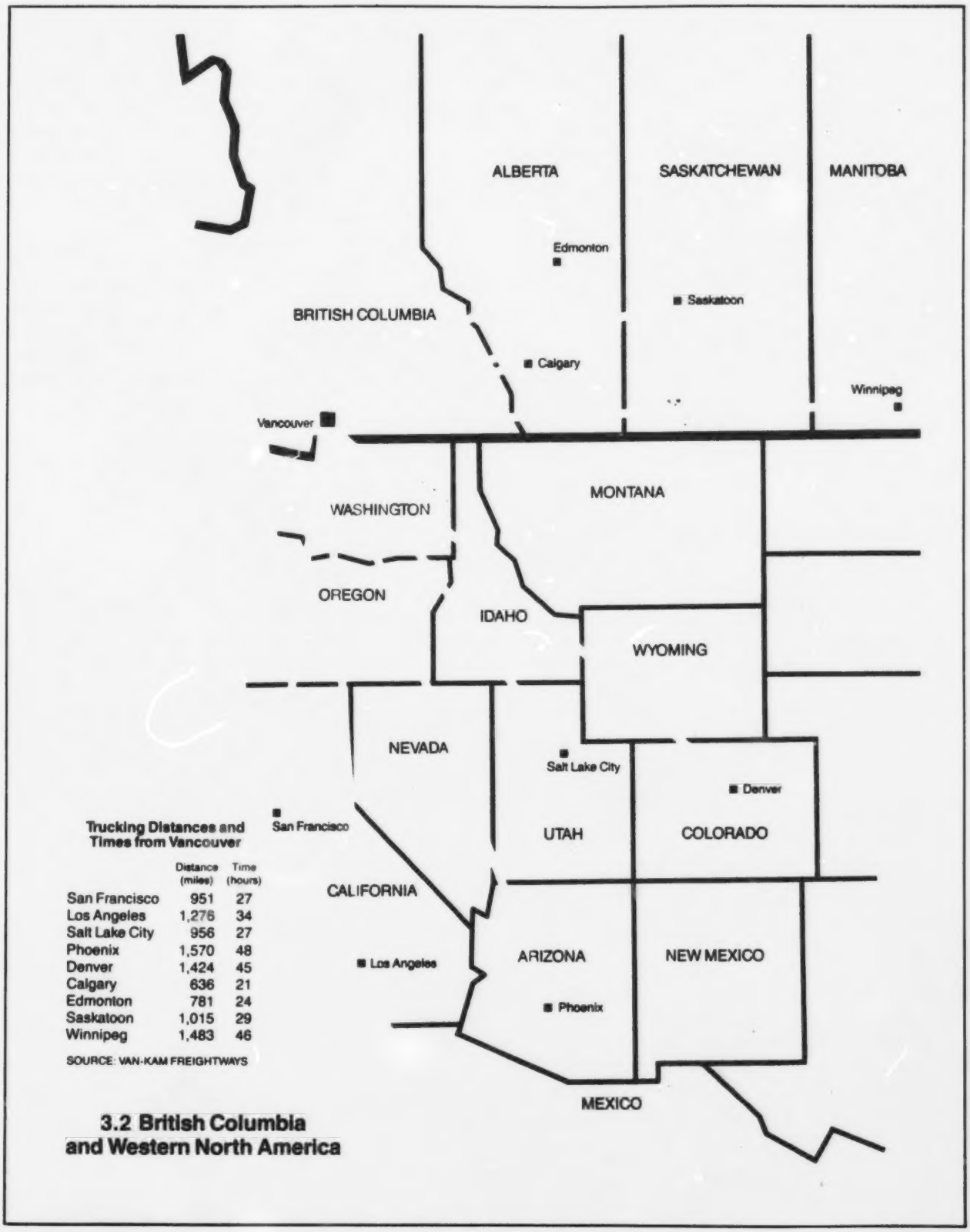
Western Canada

Western Canada's GDP totals over $160 billion and personal disposable income exceeds $100 billion. The region's per capita GDP is higher than Canada's, which ranks seventh in the OECD - West Germany is sixth, France eighth.

There is potential for import replacement in this market, especially for products that are expensive to transport relative to their value. Examples of new firms that have adopted this strategy include a manufacturer of children's diapers, and a producer of ore grinding media. British Columbia's important regional transportation role in Western Canada means that it is well placed to serve this market.

West Coast of the United States

The west coast of the United States is a large, affluent, and dynamic market which is readily accessible from British Columbia. About 35 million people live in the states of California, Washington, Oregon, and Alaska. Their total personal disposable income is nearly $700 billion.



Trucking Distances and Times from Vancouver

	Distance (miles)	Time (hours)
San Francisco	951	27
Los Angeles	1,276	34
Salt Lake City	956	27
Phoenix	1,570	48
Denver	1,424	45
Calgary	636	21
Edmonton	781	24
Saskatoon	1,015	29
Winnipeg	1,483	46

SOURCE: VAN-KAM FREIGHTWAYS

3.2 British Columbia and Western North America

Table 3.1 Regional Market Indicators

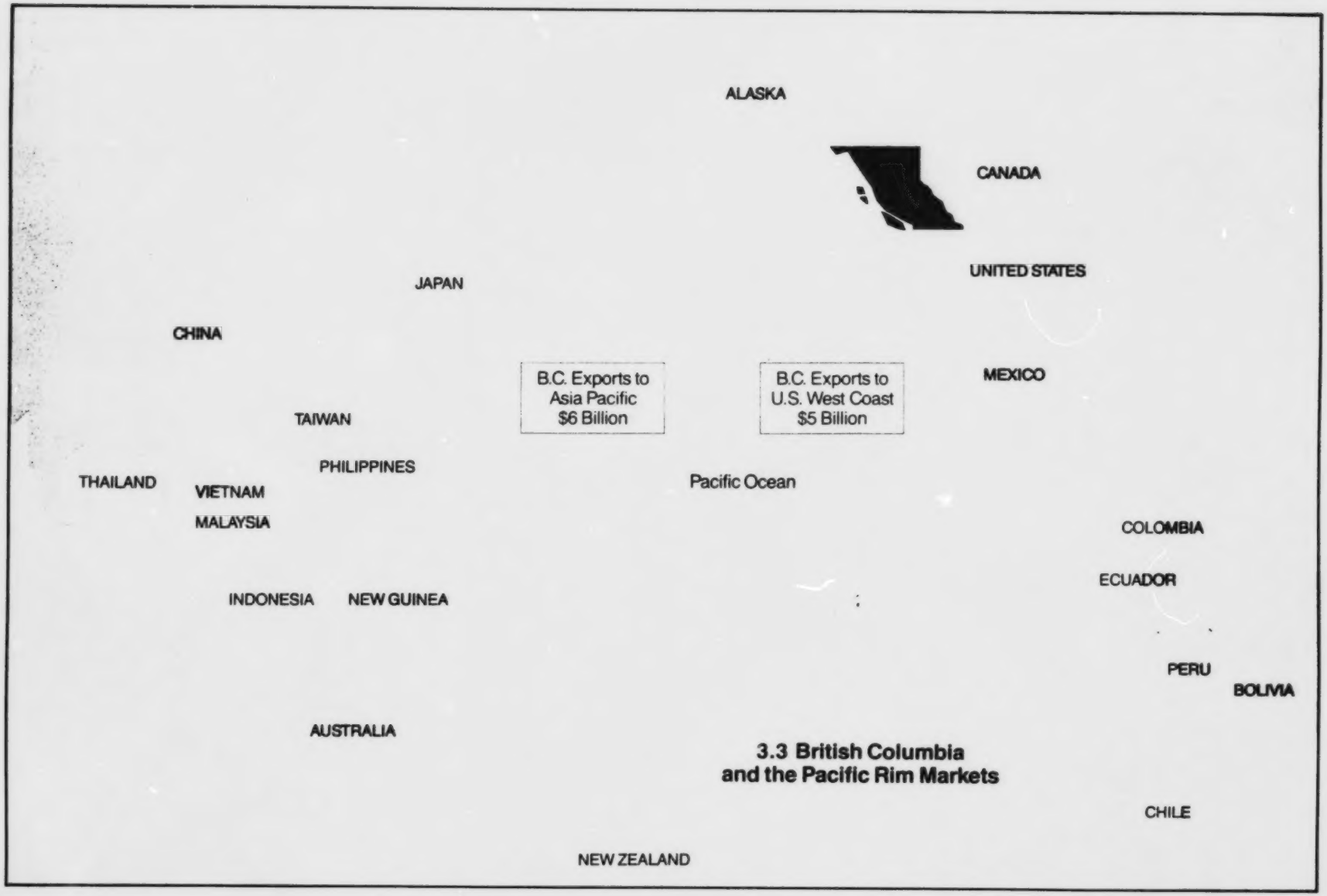
	Population (Millions)	Consumption[3] (CDN$ B)	GDP (CDN$ B)
Western Canada			
British Columbia	2.9	39.2	56.5
Prairie Provinces[1]	4.5	61.0	94.6
Total	7.4	100.2	161.2
West Coast U.S.A			
California	27.0	546.1	n.a.
Washington State	4.5	81.9	n.a.
Oregon	2.7	40.2	n.a.
Alaska	0.5	11.2	n.a.
Total	34.7	679.7	n.a.
Asia Pacific			
Japan	121.7	1,613.2	2,730.0
Republic of Korea	42.8	82.5	137.1
Hong Kong	5.5	33.4	52.0
Taiwan	19.4	59.0	98.3
ASEAN[2]	293.7	159.8	265.5
Sub-total	483.1	1,947.8	3,282.9
People's Republic of China	1,038.4	n.a.	n.a.

[1] Alberta, Saskatchewan, Manitoba

[2] Brunei, Indonesia, Malaysia, Philippines, Singapore, Thailand

[3] For Canada and the U.S. the measure is disposable income. For Asia Pacific it is consumer expenditure.

Source: Statistics Canada, Asia Pacific Foundation, U.S. Bureau of Census, U.N., and MRD estimates.



3.3 British Columbia and the Pacific Rim Markets

Under the current GATT about 80 per cent of Canadian exports to the U.S. enter duty free, and an additional 10 per cent are subject to duties of 5 per cent or less. The Canada-U.S. Free Trade Agreement will eliminate all tariff barriers between the two countries.

The defence industry complexes of California and Washington State represent a huge market for high technology firms based in British Columbia. A growing number of British Columbia's firms are penetrating high technology markets in aerospace, communications, microelectronics, and computer software as specialty sub-contractors and R & D partners. The Defence Production Sharing Agreement allows Canadian-based firms to bid on U.S. defence work.

British Columbia offers the advantages of a favourable exchange rate, lower labour costs, and lower taxes over a state-side location in serving this market. The logistics of doing business with the U.S. west coast are facilitated by the common time zone and integrated transportation systems. A Coopers and Lybrand analysis of a computer electronics manufacturer revealed that the firm's after-tax earnings were 20 per cent higher in British Columbia than in California.

Asia Pacific Region

British Columbia is one of North America's best locations for accessing the rapidly growing offshore markets of the Pacific Rim - Japan, Hong Kong, Singapore, Taiwan, Korea, China, and the newly industrializing countries of ASEAN (Figure 3.3). The province enjoys two big advantages.

First, Vancouver is the closest major port on the North American west coast to the key Japanese market.

Second, British Columbia is already Canada's leading exporter to the Asia Pacific Rim. The existence of commercial ties makes it easier to increase penetration of this market. Long-standing cultural and diplomatic ties with countries in the region further cement the economic relationship.

The phenomenal export-led growth achieved by Japan and the Asean countries during the past decade and the resulting accumulation of large trade surpluses has brought increasing pressure from their trading partners, notably the U.S. and Canada, for increased access to their markets. Also, increasingly affluent consumers in these countries want access to western goods. These forces are making an impact.

The potential market is enormous. Japan has a population of over 120 million and its GDP is approaching $3 trillion. The combined population of the NICs is more than 360 million and their combined GDP is over $500 billion.

In the longer term China represents one of the world's largest potential markets. Canada's long-standing and cordial diplomatic relationship with the Peoples' Republic of China, and the early development of commercial links between the two countries, provide an inside track for increasing trade. British Columbia is the obvious springboard.

4. PUBLIC POLICY ENVIRONMENT

The government of British Columbia has a track record of responsible financial management and of fostering a positive investment climate. Federal government initiatives on inward investment, free trade, deregulation, and tax reform are indicative of the firm commitment to private enterprise at the national level.

Federal and Provincial Jurisdiction

In Canada, governmental power is shared between the federal and provincial governments. While the federal government has exclusive jurisdiction in certain key areas of economic policy, for example, monetary policy, banking regulation, and tariffs, the provinces can and do influence national policy.

The provinces have primary jurisdiction over industrial relations, natural resource management, health, and education. There are also areas of joint responsibility and cooperation, for example, industrial incentives, training, and environmental management.

The ten year Canada-British Columbia Economic and Regional Development Agreement signed in 1984 is the principal mechanism for coordinating and jointly funding economic development initiatives in a number of sectors. These include industrial development, forestry, mining, agriculture, science and technology, and transportation.

The British Columbia government therefore has some key levers which it can operate to set a business climate that reflects its priorities.

Federal Policy Environment

Important federal policy initiatives affecting the investment climate are the Investment Canada Act, the Canada-U.S. Free Trade Agreement, and tax reform.

Inward Investment

The Investment Canada Act, which replaced the Foreign Investment Review Act in 1985, represented a major policy shift on inward investment by a new national government. There is now no review of investments by non-Canadians, except for certain large takeovers and investment in culturally sensitive industries, and the Investment Canada agency actively promotes inward investment. British Columbia endorses this policy.

Free Trade Initiative

British Columbia strongly supports the Canada-U.S. Free Trade Agreement negotiated in 1987. Increased access to the U.S. market is expected to significantly increase opportunities for British Columbian firms.

The Free Trade Agreement does a number of things to create a more secure and open trading environment with the United States - British Columbia's single largest trading partner:

* Eliminates tariffs, thereby increasing export opportunities and lowering the cost of imported inputs.

* Provides a trade dispute settlement mechanism.

* Improves access to U.S. federal government contracts for B.C. suppliers.

* Commits both countries to work towards reducing non-tariff barriers.

Tax Reform

The federal government will be implementing a program of tax reform over several years, beginning in mid 1988, that will simplify the tax system and reduce overall corporate tax rates. British Columbia's government welcomes this initiative, and will itself continue working to further reduce taxes at the provincial level.

Provincial Policy Environment

The government of British Columbia believes that a healthy private sector is the key to a robust, prosperous economy, and is committed to fostering a business climate which encourages private investment and which rewards enterprise and productivity. It recognizes too that British Columbia has a vital stake in liberal international trade and investment policies. The British Columbia government's policy initiatives reflect this commitment.

Responsible Financial Management

The province's public sector is being managed responsibly and efficiently. The growth in the deficit has been checked and taxes for business substantially reduced.

British Columbia has cut its deficit from a peak of more than $1 billion in fiscal 1986-87 to approximately $800 million in 1987-88, which is fractionally over 1 per cent of provincial GDP. The deficit target for 1988-89 is $395 million. The accumulated provincial deficit represents approximately 30 per cent of GDP, the second lowest of the ten provinces.

A revenue stabilization fund, capitalized initially at $450 million, was announced in the spring 1988 provincial budget. The fund will provide a reserve in the event of declining revenues which will avoid the need for excessive borrowing, major tax hikes, or cuts in essential public services.

Corporate Tax Cuts

Provincial tax cuts worth more than $500 million annually to businesses in British Columbia have been made since 1985. British Columbia now offers one of Canada's lowest rates of corporate taxation.

Privatization

In 1987, the British Columbia government made an assessment of its role in the economy and formulated a strategy to divest itself of certain assets and to contract out selected services which clearly would be operated and managed more efficiently by the private sector. Major items privatized include a publicly owned gas utility, forestry nurseries, testing laboratories, highway maintenance and major Crown Corporation assets. Substantial savings to taxpayers and increased efficiency are anticipated.

Investment Incentives

Government is prepared to be an active partner with the private sector, where appropriate, to remove obstacles to investment by providing financial incentives and essential infrastructure.

British Columbia has allocated over $100 million to financial incentive programs under the federal-provincial Economic and Regional Development Agreement to encourage economic diversification. Major investments in infrastructure by the province were instrumental in launching large scale projects, for example, the Whistler international resort development.

Regionalization

The British Columbia government is in the process of establishing a more decentralized system of administration and service delivery for the province based on eight development regions. The regions are represented by Ministers of State who also carry key cabinet portfolios in terms of regional development.

From the investor's viewpoint this means a streamlining of the development approval process through improved co-ordination and a commitment to the timely development of the social infrastructure required to support increased economic activity.

Investing in People

To ensure that British Columbians are equipped with the education and skills needed to work productively in a modern, complex economy, the province has given top priority to revamping the basic school curriculum. Mathematics, science, computer literacy, Pacific Rim studies, and business skills are being stressed. Funding is being provided for special advanced education and research initiatives, for example, the Advanced Systems Institute , which recruits world class scientists and engineers in the fields of microelectronics, artificial intelligence, and robotics to conduct applied research at the province's universities. Financial support for vocational training in high technology trades has been increased as well.

New Industrial Relations System

British Columbia's industrial relations legislation was overhauled in 1987 to meet the needs of an increasingly competitive economic environment and to give greater weight to the public interest in handling industrial disputes.

The new Industrial Relations Act sets more reasonable limits on the scope of legal industrial action, ensures that members of a bargaining group are given a fair opportunity to vote on contract offers, requires union votes to be by secret ballot, and establishes an improved mechanism for adjudicating disputes.

5. BUSINESS INCENTIVES

The Canadian and British Columbia governments recognize that incentives can play an important role in setting a positive business climate, so long as they do not create economic distortions.

Incentives are offered to encourage capital investment, higher value added processing, economic diversification, research and development, and job training. Investment and R & D incentives are provided through the tax system and financial assistance programs. Job training is encouraged through wage subsidies and assistance with direct training costs. The major incentives available in British Columbia are summarized in Table 5.1.

Capital Cost Incentives

Financial incentives for capital investment are provided mainly through the Canada-British Columbia Economic and Regional Development Agreement. These are aimed at firms that contribute to industrial diversification and job creation. The target sectors for assistance are higher value added resource processing, secondary manufacturing, and tourism.

Assistance is in the form of discretionary incentive loans or grants representing up to 50 per cent of capital costs, excluding land. The incentives are available in all regions of British Columbia.

Canada's generous depreciation allowances and investment tax credits are matched by few industrialized countries.

R & D Incentives

Canada's tax incentives to stimulate current and capital expenditures for R & D are among the most attractive offered by OECD countries. In addition, both the federal and provincial governments provide direct financial assistance to encourage investment in advanced technologies, applied research, and hiring of science and engineering graduates.

Training Incentives

The federal and British Columbia governments offer discretionary financial assistance for training. Federal assistance is directed mainly towards reducing skill shortages and developing skills needed to work with new technologies. The province's training incentives are directed towards special needs groups - the economically disadvantaged, youth, and women. Jointly funded training packages can be provided. Again, assistance is available in all regions of British Columbia.

Table 5.1 Tax, Capital and Training Incentives in British Columbia

Tax Incentive Programs	Activities Supported	Assistance
Investment Tax Credit (Federal)	* Manufacturing/processing * Exploration/development * Farming/fishing * Transportation * Construction	Credit against federal income tax payable: 3% of eligible capital costs (40% in Northeast B.C.)
R & D Tax Credit (Federal)	Current and capital R & D expenditures	Full write off in year made plus 20% tax credit
Tax Rate Reduction (Federal)	Manufacturing/processing	Reduction of 2 percentage points from general rate
Accelerated Depreciation (Federal)	* Manufacturing/processing machinery & equipment * Manufacturing retooling	40% declining balance 100%
Venture Capital Tax Credit (Provincial)	Registered venture capital corporation investments in manufacturing/processing R&D, tourism, aquaculture, film, publishing	Credit against provincial income tax payable: 30% of investment

Capital Incentives Programs	Activities Supported	Assistance
Industrial Diversification (Federal/provincial)	Secondary manufacturing ($2m minimum capital cost)	Grants up to 30%/loans up to 50% of eligible capital costs1
Resource Industry Value-Added (Federal/provincial)	Higher value-added processing/ manufacturing of natural resources ($2m minimum capital cost)	Loans up to 50% of eligible capital costs
Tourism Incentive (Federal/provincial)	International destination resort developments: A. Business establishment ($400k minimum capital cost) B. Resort ($1m minimum capital cost) C. Infrastructure ($1m minimum capital cost)	Loans up to 25% of eligible costs for activity A or B ($1m maximum)/ up to 50% for C ($2m maximum)
Western Diversification (Federal)	Establishment/expansion of stategically significant industry	Negotiable contributions/ loans

1 Machinery, equipment, on-site infrastructure, and purpose-built structures.

R & D Incentive Programs	Activities Supported	Assistance
Defence Industry Productivity (Federal)	Product development/ equipment modernization	Contributions up to 50% of eligible costs/loans
Discovery Enterprises Inc. (Provincial)	Commercialization of new high technology products	Venture capital
Discovery Parks Inc. (Provincial)	R & D intensive enterprises	Industrial facilities for lease adjacent to higher education/research institutions
Graduate Research, Engineering & Technology (Provincial)	Joint industry-university research employing graduate students	$12,000 p.a for Masters/ Ph.D. students
Industrial Post-Doctoral Fellowship (Provincial)	Employment of recent Ph.D. science/engineering graduates	Direct salary costs up to $25,000 (1-2 years)
Industrial & Regional Development (Federal)	Development of new products, technological demonstration projects, and industrial design	Contributions up to 40% of eligible costs
Industrial Research Assistance - component H (Federal)	Employment of undergraduate students in research	$224-450/week per student (depending on seniority)
National Sciences & Engineering Research Council (Federal)	Joint industry-university research	Variable cost-sharing of research expenses

Training Incentive Programs	Activities Supported	Assistance
Skill Shortage (Federal)	Institutional/on job training for designated trades (predominantly electrical, mechanical, computer, health and technology trades in B.C.	60% wage subsidy for off-job training plus 25% for on-job training ($350 per week/ employee maximum)
Skill Investment (Federal)	Institutional/on job training for developing new skills related to technological change	See Skill Shortage Program
Employment Training (Provincial)	Institutional/on job training for special needs groups & apprentice/journeyman upgrading	Variable wage subsidies and training cost assistance

6. CORPORATE TAX ENVIRONMENT

Effective corporate tax rates in British Columbia are among the lowest of comparably industrialized economies anywhere.

Business taxes in Canada are levied by the federal, provincial, and municipal governments. Table 6.1 summarizes the main features of the current tax system.

Nominal Tax Rates

Corporate income tax in British Columbia is one of the lowest in Canada. British Columbia manufacturing and processing firms pay the uniform 26 per cent federal tax and a 14 per cent provincial tax on their taxable income - 40 per cent in total. The general business rate is 28 per cent federally and 14 per cent provincially in British Columbia.

Effective Tax Rates

Comparing nominal corporate tax rates in OECD countries suggests that a company operating in British Columbia faces relatively high taxation (Figure 6.1), but this type of comparison is misleading. Looking at the actual tax treatment of businesses under different national tax systems reveals a different picture.

A 1987 comparative tax analysis by the Conference Board of Canada, an independent private research group, computed effective tax rates for a sample of Canadian companies which were assumed to be operating under various national tax systems. Three secondary manufacturing sectors were examined - machinery, telecommunications equipment, and petrochemicals. The countries selected for comparison were considered to be competitive in these industries.

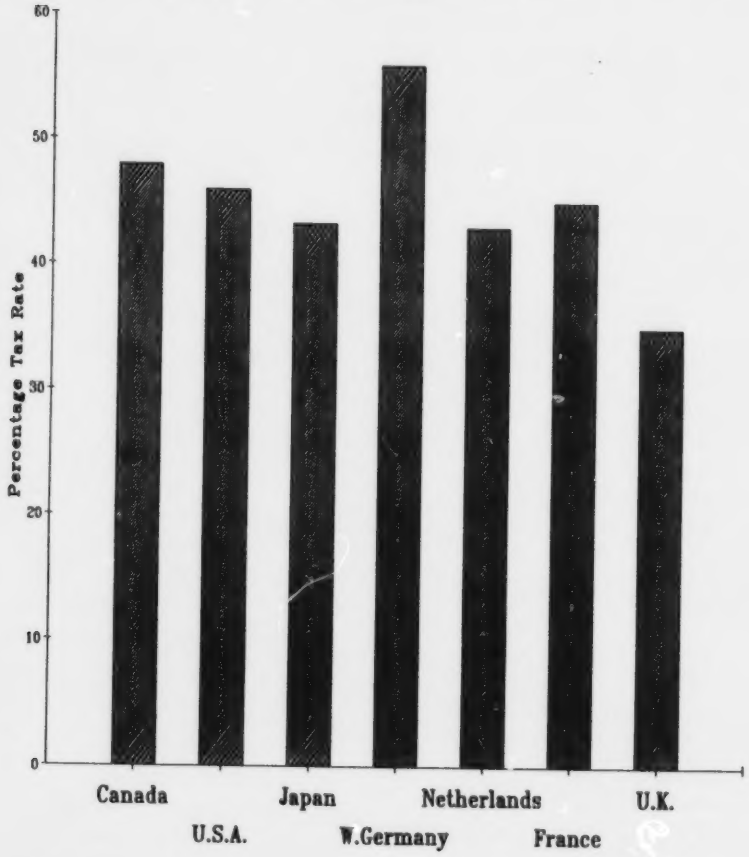
The Conference Board found that Canada's generous tax incentives and depreciation rules resulted in effective tax rates that compared favourably to countries with lower nominal rates, including the United States, Britain, France, and the Netherlands (Figure 6.2).

The most important tax concessions and incentives currently available in Canada are:

Federal income tax rate reduction from the general rate of 28 per cent to 26 per cent for manufacturers and processors;

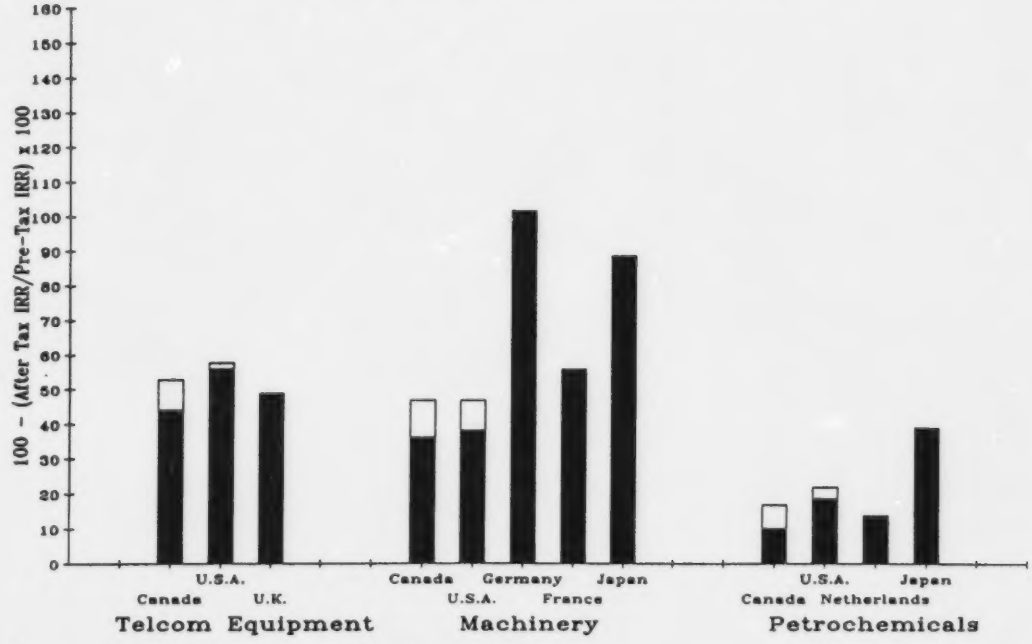
Accelerated write off of manufacturing and processing machinery and equipment (40 per cent declining balance);

Figure 6.1 Nominal Corporate Income Tax Rates
Selected OECD Countries 1986



Source: OECD

Figure 6.2 Effective Corporate Tax Rates
Selected Industries and Countries 1986
(Tax rate differentials shown between highest and lowest taxing jurisdictions within Canada and USA)



Source: Conference Board of Canada

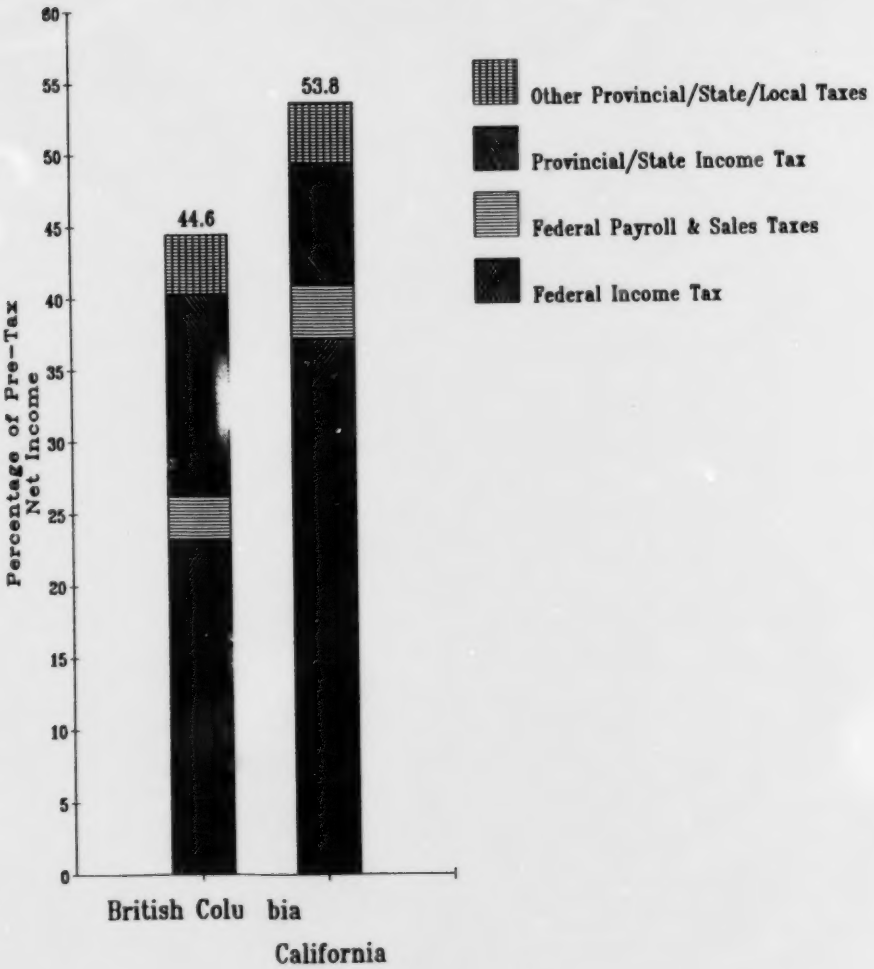
Investment tax credits based on the cost of new plant, machinery, and equipment (3-40 per cent in British Columbia) which reduce federal income tax payable;

Write off of R & D capital and operating expenditures in the year they are incurred, plus a 20 per cent tax credit for these expenditures to be applied against federal income tax.

In addition, Canadian customs regulations provide for duty remission on imported materials used in manufacturing products for export. Duty may be rebated also on imported machinery and equipment which is not available in Canada.

Comparing the 1984 tax position of a medium scale electronics manufacturer in British Columbia and California, the international accounting firm of Coopers and Lybrand found that the total tax burden in California was 21 per cent higher (Figure 6.3). Tax changes since 1984 have maintained British Columbia's advantage (Table 6.2).

Figure 6.3 Tax Rates - Medium Size Electronics Firm
British Columbia & California 1984



Source: BC Ministry of Finance & Corporate Relations

Table 6.1 The Federal and British Columbia Tax Systems

	Rate	Deductions & Credits	Comments
Income Tax			
Federal	28 %	Normal expenses to produce business income	
		2% manufacturing/processing deduction	
		3-40% Investment Tax Credit	
		Immediate write-off of current & capital R&D costs	
		20% R&D tax credit for current & capital costs	
		Depreciation expense:	
		Manufacturing/processing machinery & equipment 40% declining balance	35% declining balance in 1989 tax year
		Buildings 4% declining balance	
		Foreign Tax Credit	
Provincial	14%		Calculated on federal taxable income

Payroll Taxes	Rate	Deductions & Credits	Comments
Unemployment Insurance	3.29% of gross payroll		Maximum $967 p.a. per employee
Canada Pension Plan	2% of gross payroll		Maximum $478 p.a. per employee
Workers' Compensation	Rates vary by industry		E.g. 0.5% of gross payroll for telcom manufacturer
Sales Taxes			
Federal	8-12%		Raw materials/ intermediate products for manufacturing exempt
Provincial	6%		As above
Property Taxes			
Provincial/ Municipal	Rates vary by community		Approximate range $20-30 per $1,000 of value of land & buildings

Table 6.2 Comparison of Selected Tax Rates for B.C. and California, 1983 and 1987/1988

	B.C.		CA	
	1983	May 1988	1983	October 1987
Federal Corporate Income Tax				
0-25	31*	26**	15	15
25-50			18	15
50-75			30	25
75-100			40	34
100-335			46	39
335-			46	34
Federal Surtax	2.5	3		
Provincial/State Corporate Income Tax	16	14	9.6	9.6
Combined Provincial/State and Local General Sales Tax	7.0***	6.0	6.0-6.5	6.0-6.5****

* General rate of 36%, reduced by 5 percentage points for manufacturing.

** Rate for manufacturing business; this rate will fall to 23% in 1991

*** B.C. retail sales tax was reduced to 7.0%, effective July 8, 1983, and this rate was used in the Coopers and Lybrand study.

**** Some counties have rates of 7.0% effective 1988.

Federal and Provincial Tax Policy

Canada's federal government is currently implementing a program of tax reform that will broaden the tax base and lower overall corporate tax rates. Some existing incentives will be reduced or eliminated. Although these changes are designed mainly to achieve certain domestic goals the federal government recognizes that Canada must maintain a favourable tax environment to attract foreign capital and enable its export industries to compete effectively.

The government of British Columbia supports the federal tax reform program and is itself committed to further lowering provincial taxes. Since 1983 the province has cut corporate income tax, sales tax, and industrial property taxes. British Columbia now has one of the most attractive business tax environments in Canada.

7. LABOUR

British Columbia's work force is well educated, versatile, and relatively youthful. Labour costs are internationally competitive and labour discipline in both the secondary manufacturing and service sectors is excellent.

Work Force Profile

The province's total work force is about 1.4 million and 60 per cent male. Labour force growth has averaged 3.5 per cent during the past decade compared to 2.8 per cent for Canada as a whole. The combination of economic opportunity and an attractive living environment has made British Columbia one of the preferred destinations of both domestic migrants and immigrants to Canada. Typically these people are the younger, better educated, more enterprising, and more skilled members of their home communities.

Almost 25 per cent of the province's work force is under 24 years of age and about 50 per cent are between 25 and 44. Younger workers tend to be more adaptable and there is a higher payoff from training them.

Approximately 15 per cent of British Columbia's workers have a university degree and a further 43 per cent have other higher education or vocational training. The corresponding Canadian averages are 15 per cent and 37 per cent.

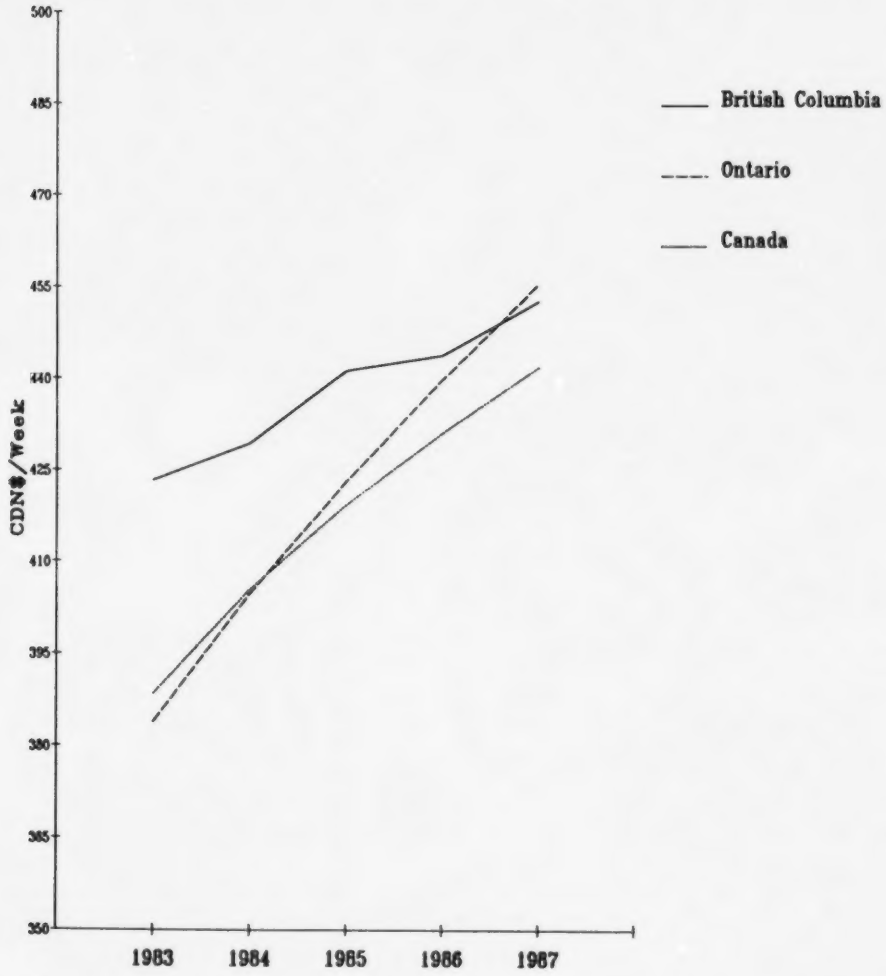
Labour Costs

Historically, British Columbia's wage levels have been above the Canadian average, but there has been a consistent trend towards convergence in recent years. This is in contrast to Ontario, Canada's largest industrial province, where the trend has been in the opposite direction (Figure 7.1).

In 1980 average weekly earnings in British Columbia were 109 per cent of the Canadian average. The corresponding figure for Ontario was 99 per cent. By 1987 earnings in British Columbia were 102 per cent of the national average while in Ontario they had increased to 103 per cent.

This past year the majority of union contracts came up for renewal and were successfully negotiated ensuring a 3 year guarantee of labour stability. The contract settlements typically were below those negotiated in Ontario.

Figure 7.1 Average Earnings - All Industries
BC, Ontario & Canada 1983-87



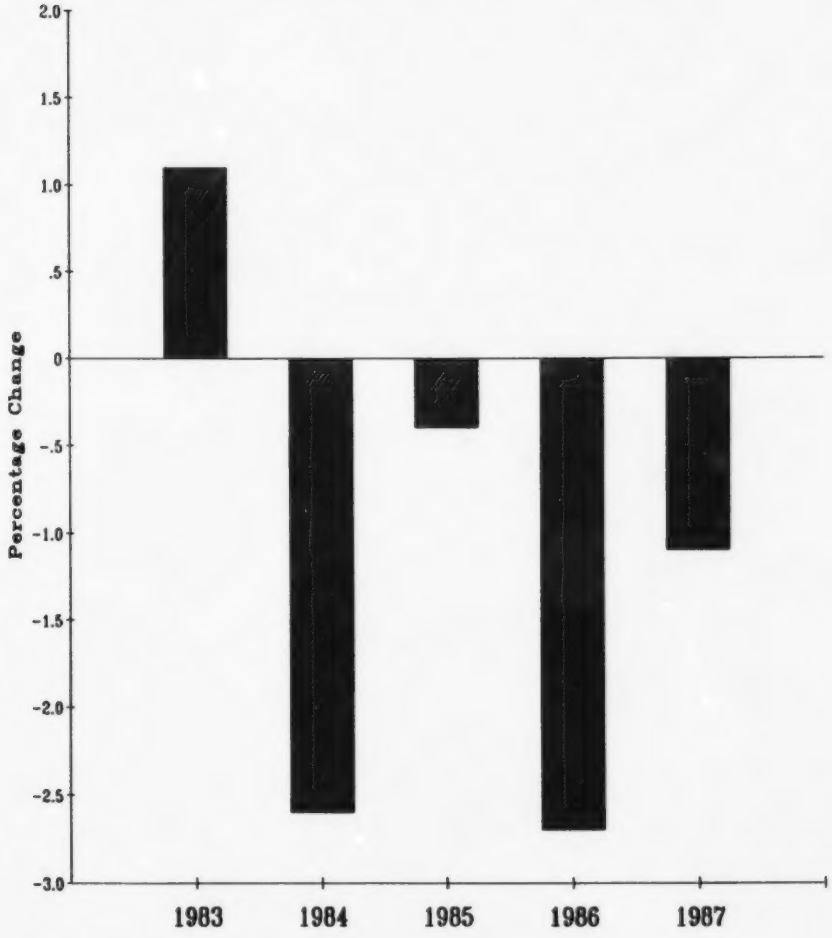
Source: Statistics Canada

Table 7.1 Non-Union Pay Rates for Selected Occupations: British Columbia and Ontario, 1988

Occupation	British Columbia	Ontario
Salaried ($/month)		
Accounts Clerk (Snr.)	1408-2064	1560-1960
General Clerk (Snr.)	1625-2163	1620-2000
Computer Operator (Snr.)	1316-2827	1668-2040
Draughtperson	1600-2500	1580-2680
Systems Analyst	1647-3000	1670-4580
Hourly		
Millwright	12.00-16.00	10.00-18.42
Pipefitter/Plumber	10.50-17.71	12.00-18.00
Warehouse Person	5.00-12.00	5.50-14.00
Truck Driver	8.00-14.00	7.50-16.70
Heavy Duty Equipment Operator	13.29-16.88	12.00-19.00
Diesel Mechanic	11.00-16.00	8.00-19.62
Electrician	12.00-18.42	11.00-22.00

Source: Canada Employment and Immigration Commission

Figure 7.2 Real Average Weekly Earnings – All Industries
British Columbia 1983–87



Source: BC Ministry of Regional Development/Statistics Canada

The actual rate of wage increases in British Columbia dropped from 7.9 per cent in 1982 to 2.2 per cent in 1984 and to 1.4 per cent in 1986. The comparable figures for Ontario were 10.4 per cent in 1982, falling to 4.5 per cent in 1984 and 1986. 1987 figures show that Ontario continues to lead with wage increases averaging 4.6 per cent in the first three quarters of 1987, compared to 3.1 per cent in British Columbia. Adjusting for price changes, real wage costs in British Columbia have declined every year for the last four years (Figure 7.2).

Historically, labour costs in British Columbia's secondary manufacturing sector have exceeded Ontario's. This is attributable to differences in industrial structure between the two provinces. Ontario's secondary manufacturing sector has a larger proportion of routine assembly operations and female workers, factors associated with lower wage levels. By contrast, British Columbia's industries are more specialized and male dominated. More recently, this gap has closed and there is currently rough equivalence (Table 7.1).

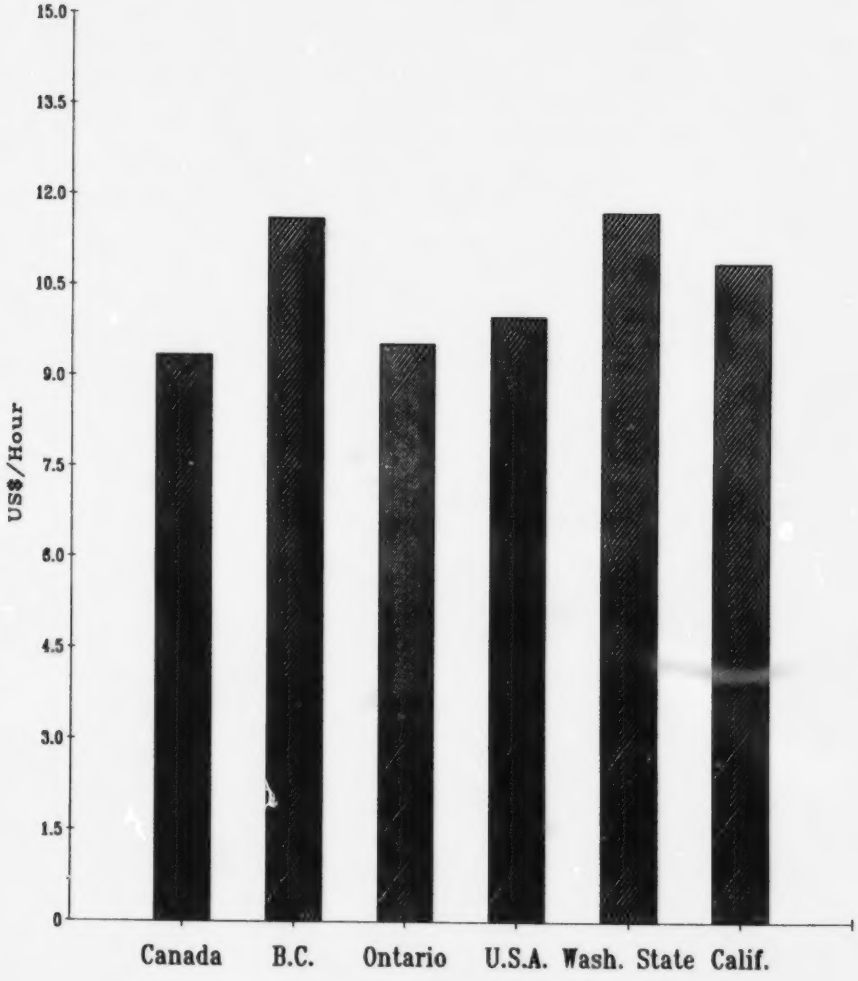
International Comparisons

From an international perspective British Columbia's wages appear high in comparison to West Germany, France, Britain, and the United States, although they are on a par with those of its Pacific Coast neighbours - California, Washington State, and Oregon (Figure 7.3).

But wages alone do not provide a complete picture when comparing labour costs internationally since the non-wage component of total compensation varies greatly among countries (Figure 7.4). The cost of employee benefits in Canada are among the lowest of the industrialized nations.

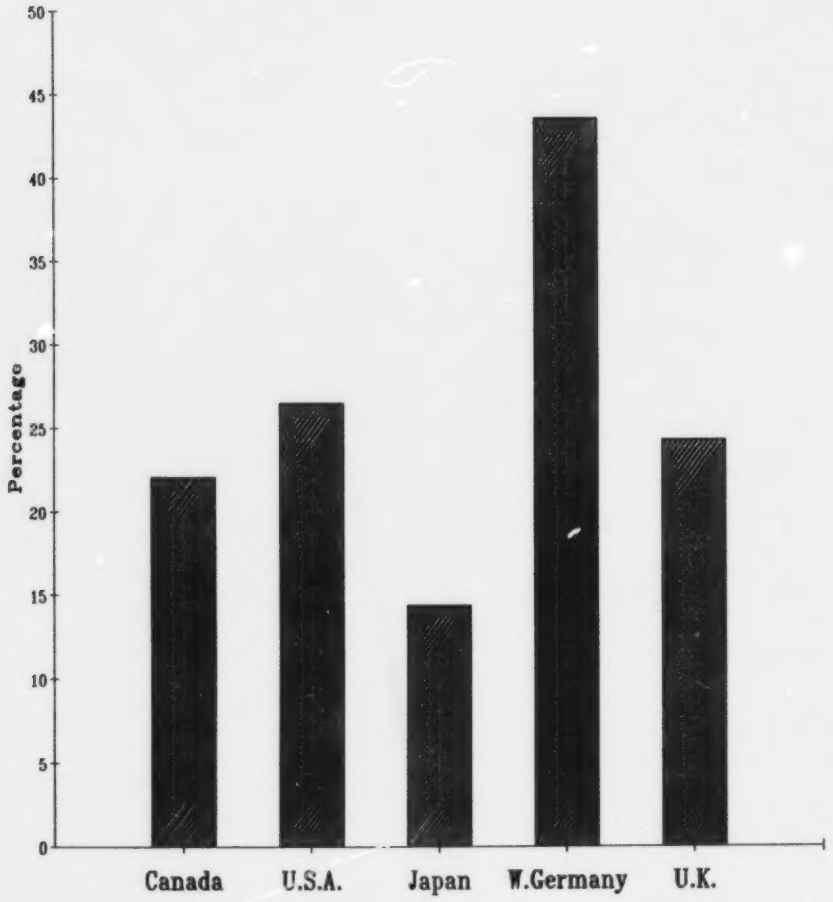
Comparing total compensation, Canada and British Columbia look increasingly competitive internationally (Figure 7.5). Exchange rates, of course, play an important role in determining this cost advantage (Figure 7.6).

Figure 7.3 Average Earnings in Manufacturing
Selected Jurisdictions 1987



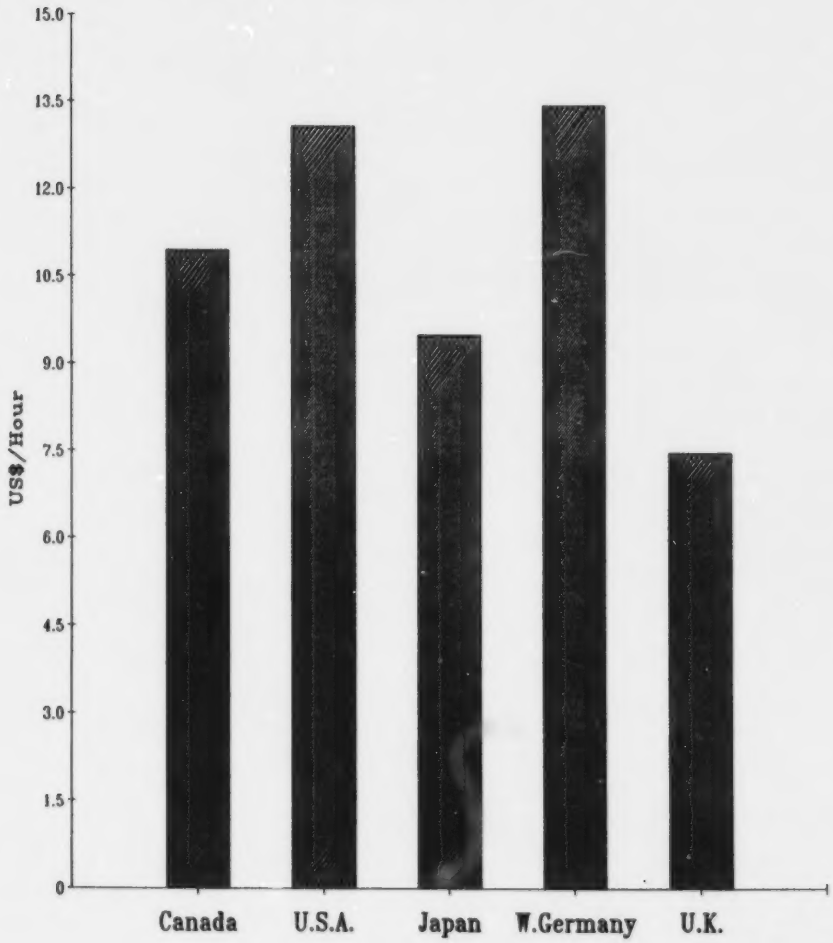
Source: Statistics Canada/US Bureau of Labour Statistics

Figure 7.4 Employee Benefit Cost Component of Total Compensation – Manufacturing Selected OECD Countries 1986



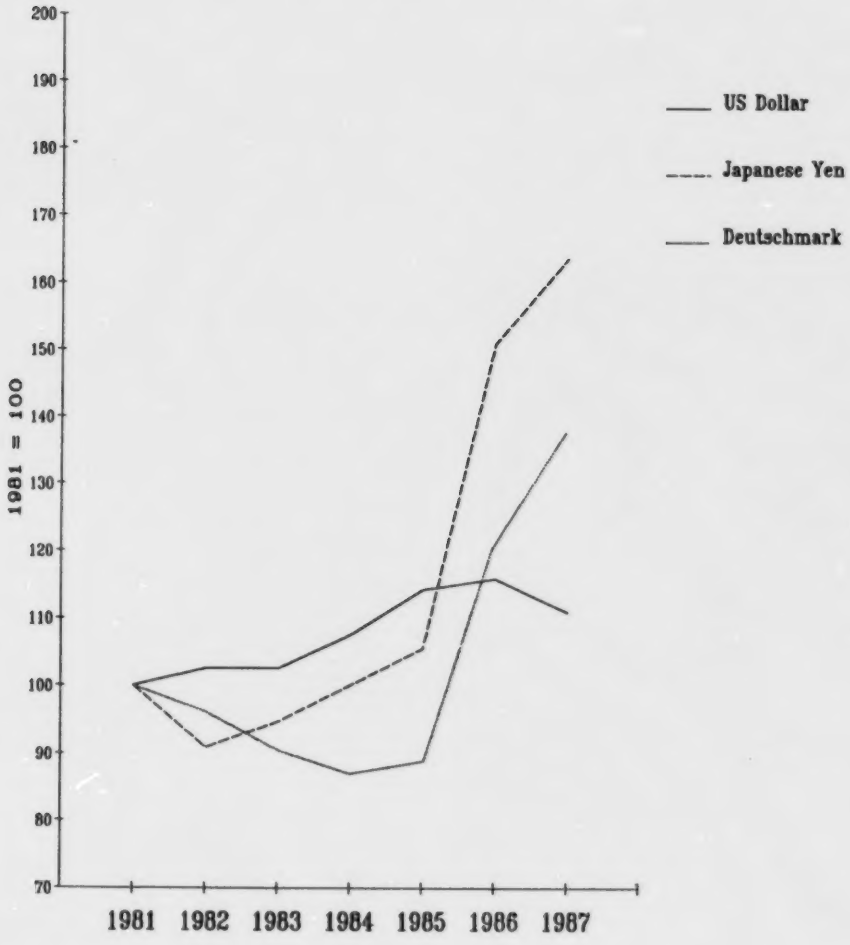
Source: US Bureau of Labour Statistics

Figure 7.5 Total Compensation – Manufacturing
Selected OECD Countries 1986



Source: US Labour Bureau of Statistics

Figure 7.6 Index of Canadian Dollar Exchange Rates
Selected Currencies 1982–87



Source: Financial Post

Continuing restraint in wage settlements and falling comparative labour costs are expected to prevail for some time in British Columbia. There are three main reasons for this:

Employment in the higher wage, unionized resource sector of the economy is declining. Employment is growing most rapidly in smaller scale secondary manufacturing and service industries which typically are not unionized;

Workers are increasingly recognizing that economic rewards and employment security are fundamentally dependent on competitive labour costs, and are prepared to be more flexible;

Labour force increases due to continuing natural growth of the working age population, in-migration, and an increasing female participation rate will continue to dampen the effects of employment growth on unemployment levels.

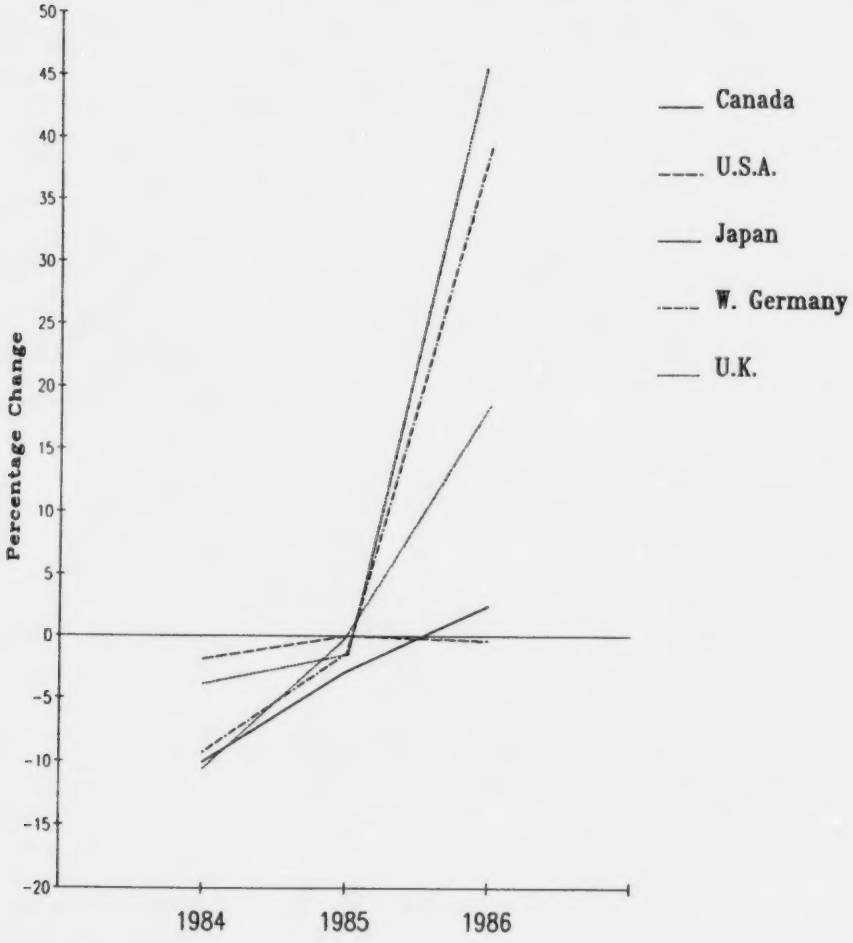
Since these are structural rather than cyclical changes the effects are expected to be enduring.

Productivity

The competitiveness of labour needs to be considered in terms of productivity as well as costs. Between 1982 and 1986 labour productivity in Canada increased at an average annual rate of 1.6 per cent. British Columbia achieved a rate of 2.6 per cent. While there is a normal tendency for output per worker to increase during an upturn in the economic cycle, the ongoing technological transformation of the economy is bringing about structural adjustments in productivity.

Figure 7.7 compares manufacturing performance measured by unit labour costs in selected OECD economies. Because specific figures are not available for British Columbia, Canadian aggregate figures are used as a proxy. The record shows that Canadian manufacturers have kept unit labour cost changes below those of the U.S. and other major competitor nations. From 1983 to 1986 unit labour costs in manufacturing fell by 10.6 per cent in Canada, a much greater drop than the 2.2 per cent decline registered in U.S. manufacturing. In recent years exchange rate advantages have further improved Canada's relative position. Extrapolating from domestic and international trends, British Columbia is on a firm competitive footing.

Figure 7.7 Unit Labour Costs in Manufacturing (US$ Basis)
Selected OECD Countries 1984–86



Source: US Bureau of Labour Statistics

Industrial Relations

Industrial relations in British Columbia, except for a relatively small proportion of workers under federal jurisdiction, are governed by provincial labour legislation - the Industrial Relations Act. The law prohibits work stoppages during the term of a collective agreement, and if disputes arise they must be settled through an established grievance procedure or binding arbitration.

Recent changes to British Columbia's industrial relations system are aimed at creating a stable labour climate that will be conducive to new investment. The new legislation restores a greater measure of choice to workers on the subject of union representation, prohibits secondary boycotts, limits the extent of primary and secondary picketing, ensures that union voting is by secret ballot, and requires that a vote be taken on a bargaining group's final contract offer. The new legislation also gives greater weight to the public interest in the resolution of labour disputes.

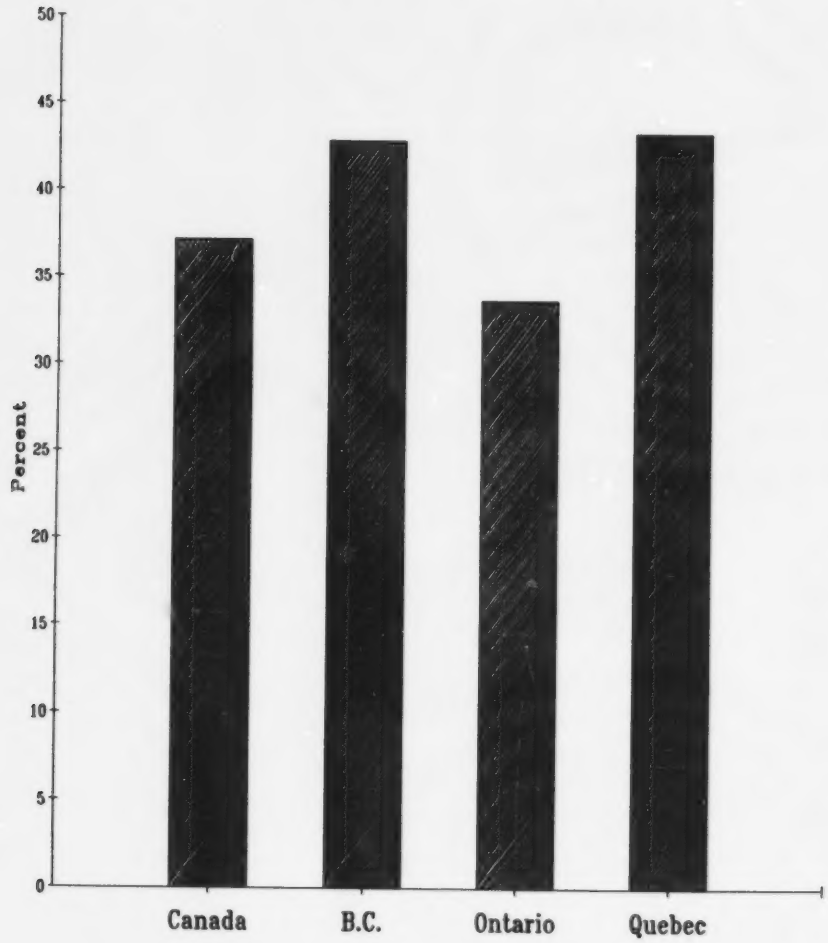
Unions and Industrial Disputes

About 43 per cent of British Columbia's employed workers are unionized. This compares to 37 per cent for Canada as a whole, 34 per cent for Ontario, and 43 per cent for Quebec (Figure 7.8). In British Columbia union representation is highest in the resource and construction industries. Together these account for the largest proportion of days lost due to work stoppages.

Between 1973 and 1985 strikes in the lumber, pulp and paper, and construction industries accounted for 70 per cent of all working time lost to industrial disputes. It is worth noting that approximately 1,500 collective agreements covering more than 200,000 workers expire annually in British Columbia, the vast majority of which - 90 per cent or more - are renegotiated without any work stoppage.

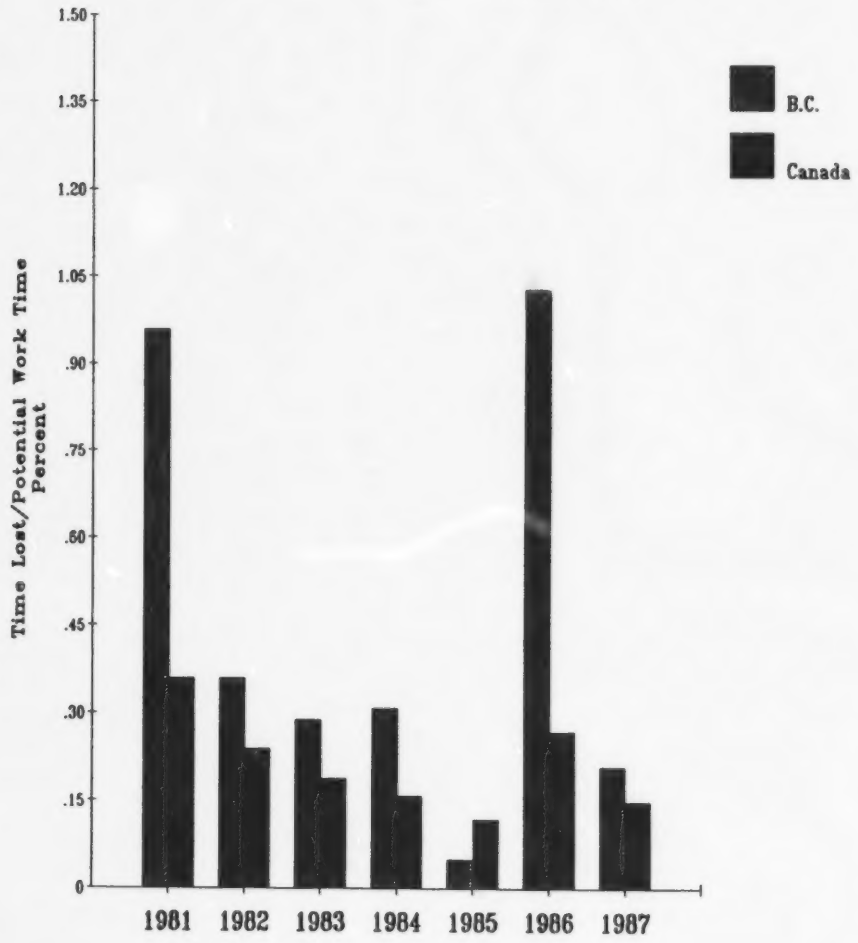
In total, the actual number of working days lost amounts to a tiny fraction of potential working time, typically a few tenths of one per cent. By and large British Columbia's industrial dispute record parallels the Canadian norm (Figure 7.9). Periodically there are peaks in time lost, marking disputes in the forest industry, construction, and the public sector which are characterized by centralized bargaining.

Figure 7.8 Unionized Portion of the Work Force
Canada and Selected Provinces 1984



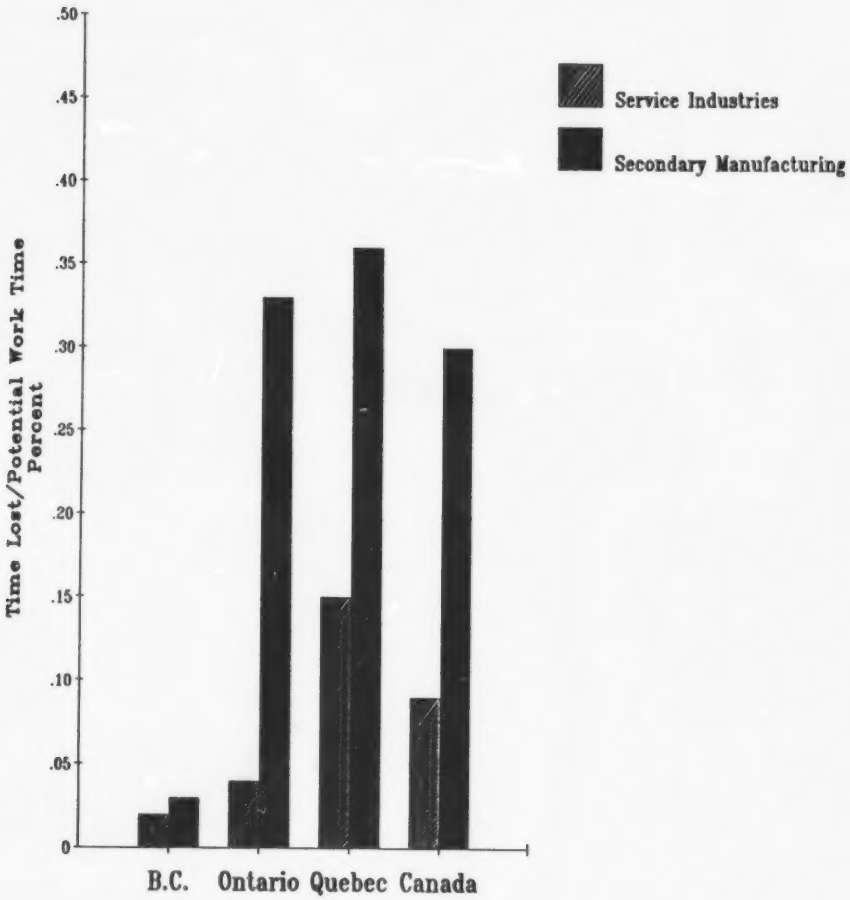
Source: Labour Canada

Figure 7.9 Time Lost Due to Work Stoppage
British Columbia and Canada 1981–86



Source: Labour Canada

Figure 7.10 Time Lost Due to Work Stoppage
Secondary Manufacturing and Services
Canada and Selected Provinces 1987



Source: Labour Canada

The province's record in the secondary manufacturing and service sectors is good. During 1987, for example, secondary industries in British Columbia lost only 0.03 per cent of potential working days to industrial disputes compared to 0.3 per cent for Canada, one tenth as much. The figure for the service industries was 0.02 per cent provincially and 0.09 per cent nationally (Figure 7.10).

Illegal work stoppages and violence in industrial disputes are extremely rare in British Columbia. A national study of the incidence of illegality and violence in labour disputes by professor Stuart Jamieson of the University of British Columbia revealed that Ontario and Quebec, Canada's two largest provincial economies, have experienced much greater union militancy than British Columbia in the post-war period.

International Comparisons

International comparisons of labour relations using readily available work stoppage information are often misleading since reporting, systems differ considerably from country to country. Unfortunately these statistics are widely cited without any mention of their limitations.

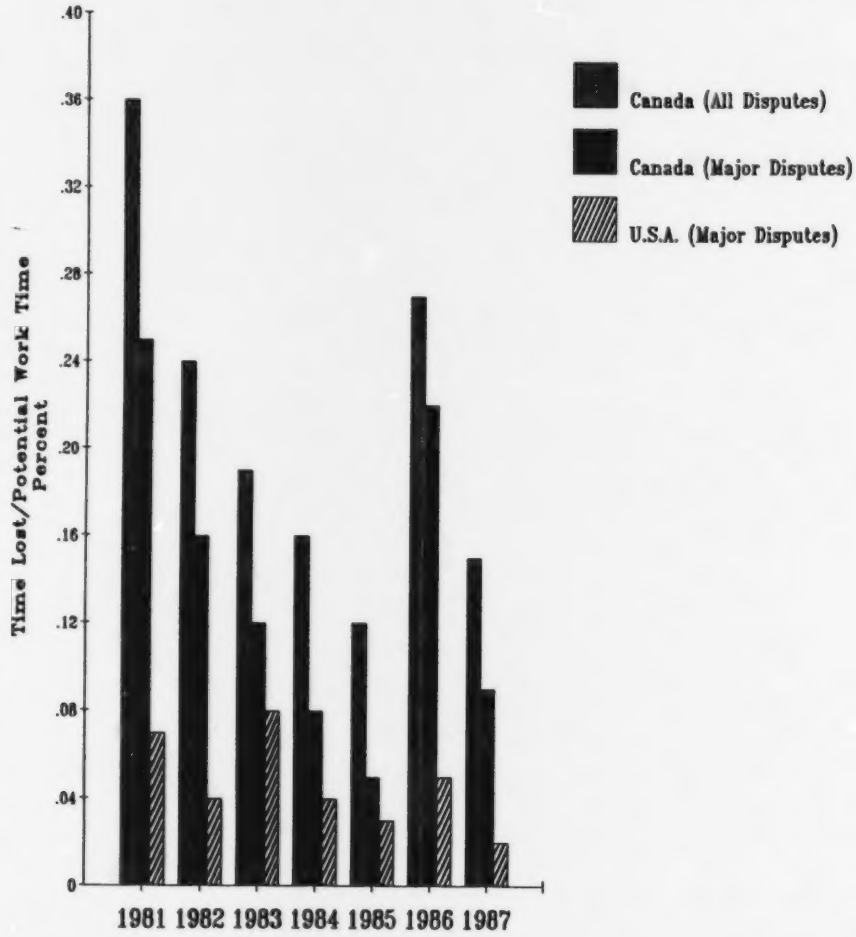
For example, Canada's dispute record is often compared with that of the United States, and usually appears in an unfavourable light. The problem is that while the U.S. reports only disputes involving more than 1,000 workers, Canada reports all work stoppages, regardless of the numbers involved. Labour Canada now produces a report of "major disputes" which provides coverage of an equivalent portion of the unionized workforce to the U.S. figure, permitting a fairer comparison. Figure 7.11 shows that the records of Canada and the U.S. are actually less disparate than usually reported.

The structural factors responsible for restraining labour costs in British Columbia - labour force increases relative to employment growth, and declining employment in the strongly unionized sectors - also should have a positive long term effect on labour discipline.

Labour Availability

Shortages of highly trained workers are experienced in varying degrees in most advanced economies. Within Canada British Columbia has always attracted a disproportionately large share of mobile workers when labour markets are tight. This is due less to industry paying a premium than to the province's outstanding amenities.

Figure 7.11 Time Lost Due to Major Industrial Disputes
Canada and the United States 1981–87



Source: Labour Canada

Although it is often expedient for industry to rely on attracting workers from other regions, the government of British Columbia recognizes the importance of developing "home grown" talent. Provincial control of education and apprenticeship programs means that post secondary academic and vocational training can be made responsive to the needs of the economy.

Education is a spending priority of the provincial government and funding at all levels is being increased. The school curriculum is being revamped, emphasizing science, mathematics, computing, business and Asian studies. Tax incentives for industry-sponsored research at higher education institutions were announced in the spring 1988 budget. In consultation with industry the government is looking at modernizing apprenticeship training to make the system more flexible.

Institutional and Legal Framework

The main features of the provincial legal and institutional framework governing employment standards, occupational health and safety, and industrial relations in British Columbia are summarized in Table 7.2.

Table 7.2 Provincial Labour Legislation in British Columbia

	Provisions	Authority/Responsibility
Employment Standards		
Minimum wage	$4.50/hr 18 years & older $3.65 under 18 years	Employment Standards Act/ Ministry of Labour
Hours of work	Up to 40 hrs/week at regular pay	
Vacation	2 weeks p.a. paid at 4% of gross annual pay	
General holidays	9 days p.a. with pay	
Maternity leave	Up to 18 consecutive weeks without pay & full reinstatement	
Termination	Dismissal for cause with 2 weeks notice or pay in lieu	
Layoff	Up to 13 weeks in a 20 week period without need to terminate	
Factory Standards	Standards for employee facilities in work place	Workplace Act/ Workers' Compensation Board

	Provisions	Authority/Responsibility
Occupational Health & Safety	Workplace inspections for health/safety	Workers' Compensation Act/ Workers' Compensation Board
Industrial Relations	Definition of employer/ employee rights & unfair labour practices	Industrial Relations Act/ Industrial Relations Council
	Procedures for acquisition/ termination of bargaining rights	
	Collective bargaining procedures & first agreements	
	Strike/lockout rules	
	Mediation/adjudication of contract disputes	
Human Rights	Prohibits discrimination by race, ethnic origin, sex, & age	Human Rights Act/ Council of Human Rights1

1 Canadian Charter of Rights and Freedoms is also applicable.

8. QUALITY OF LIFE

The lifestyle preferences of creative and highly skilled people increasingly determine where business locates. Social and intellectual stimulation, leisure opportunities, a livable climate, personal security, aesthetics, and a clean environment are typically important values. British Columbia attracts and keeps the kind of talent that makes business tick in a sophisticated, modern economy.

Natural and Social Amenities

The province's natural environment is strikingly beautiful and diverse. Outdoor recreation is outstanding year round. The coast is dominated by the spectacular Coast Mountain Range, fjords, and rain forest. The plateau and canyon country of the interior gives way to prairie in the northeast corner of the province and to the Rocky Mountains in the southeast.

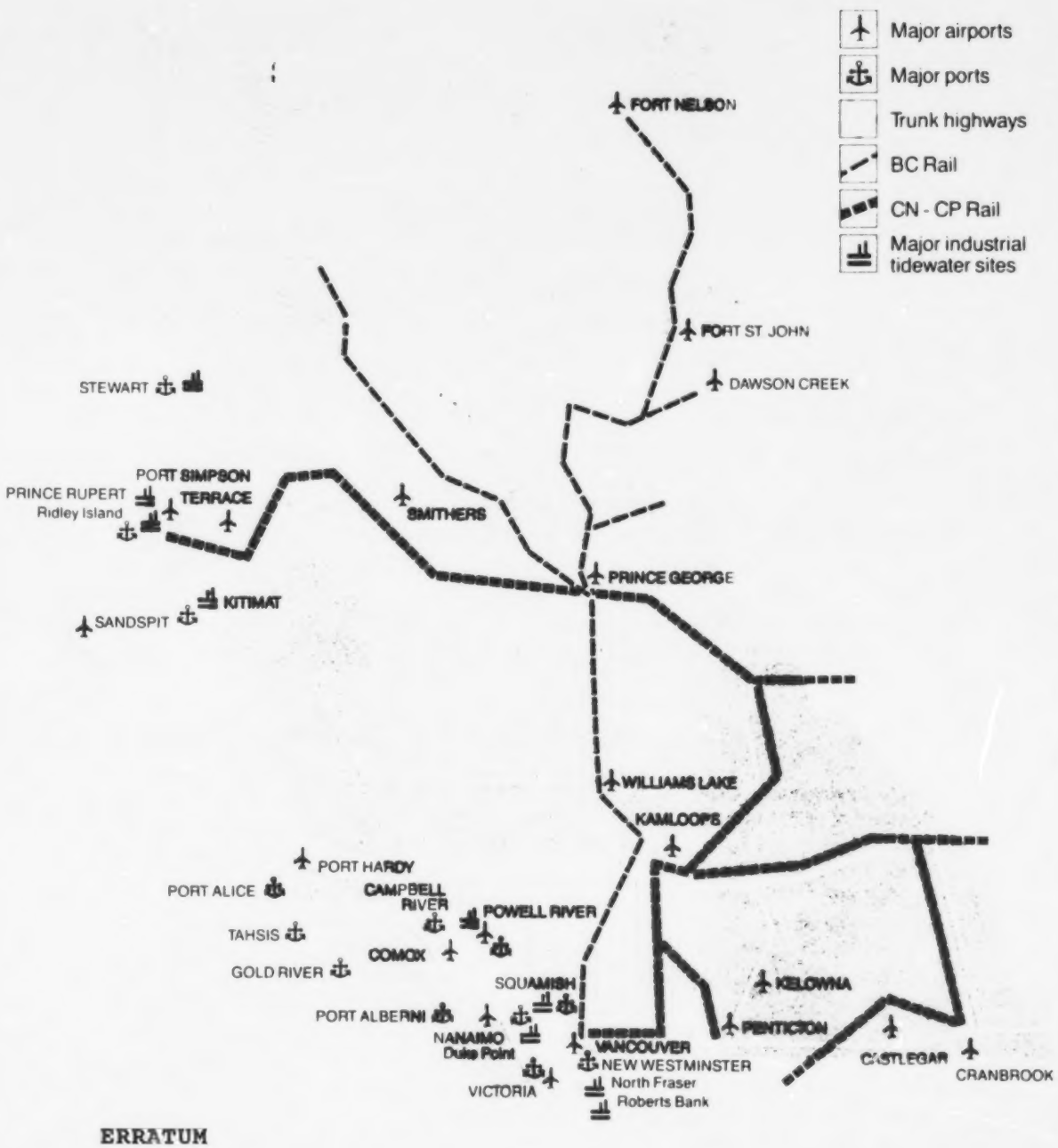
The climate of the southwestern part of the province, where most of the population lives, is temperate. Rainfall is most abundant during the mild winters. Summers are warm and dry. The interior has a continental climate - hot, dry summers and cold winters with light to moderate snowfall (Figure 8.1).

British Columbia's social amenities are among the best in North America. Standards in public education, health and transportation, personal security, housing, and culture are excellent. There is a wide choice of social environments in which to live, from metropolitan to rural. Regardless of where individuals chose to live excellent communications allow participation in the economic and social mainstream.

The Vancouver metropolitan area, with a population of about 1.5 million, is at the hub of the province's economic and social life. Film, theatre, the arts, and cuisine reflect the city's cosmopolitan character and ethnic diversity. The two universities are actively involved in the community, offering a wealth of continuing education courses, free public lectures, and public programs in the visual and performing arts.

The quality and accessibility of outdoor leisure opportunities enjoyed by Vancouverites are unrivalled in Canada. Within half an hour to forty five minutes by car outdoor enthusiasts can be downhill or cross country skiing in winter, and hiking, backpacking, canoeing, or hang gliding year round. Superb beaches and parks are literally on the doorstep. Sailing, windsurfing, scuba diving, and sports fishing can be enjoyed at their best.

10.1 British Columbia
Transportation Infrastructure



ERRATUM

Figure 10.1 (p.62)
and Figure 8.1 (p.70)
should be transposed

Vancouver's moderate climate contrasts sharply with the extremes endured by major centres in the Prairies and Eastern Canada. Summers are dry, sunny, and warm, rather than hot or humid. Winters are mild and snowfall is minimal (Figure 8.2.1-3).

Symbolically, 1986 marked Vancouver's coming of age as a world city. The World's Fair - Expo 86 - was acknowledged internationally as a major success, and projected a positive image for British Columbia and its people.

Victoria - the provincial capital - and regional centres such as Kelowna, Prince George, Kamloops, and Nanaimo, offer a more relaxed pace of life, high quality social amenities, and outstanding outdoor recreation opportunities.

Cost of Living

Living in British Columbia is not only enjoyable, it is also affordable. Figure 8.3 shows that housing costs in British Columbia compare very favourably with those in Ontario, Quebec, and Alberta.

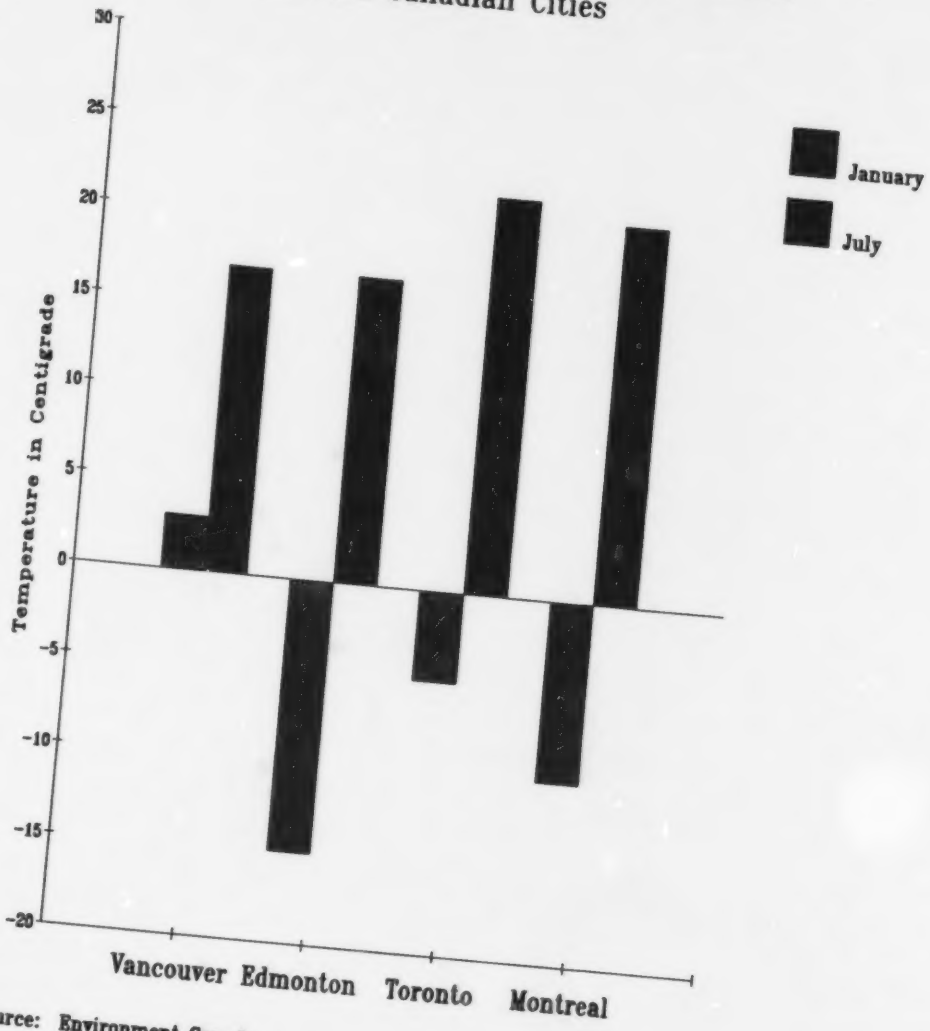
Consumer prices in British Columbia have been stable during the last five years. Cost of living indices for major Canadian cities show that Vancouver has experienced the lowest rate of inflation, averaging 3.8 per cent between 1983 and 1987 (Figure 8.4).

9. ENVIRONMENTAL MANAGEMENT

British Columbia's natural environment is an important heritage and a valuable resource. The provincial government is committed to preserving environmental quality and balancing the interests of different resource users.

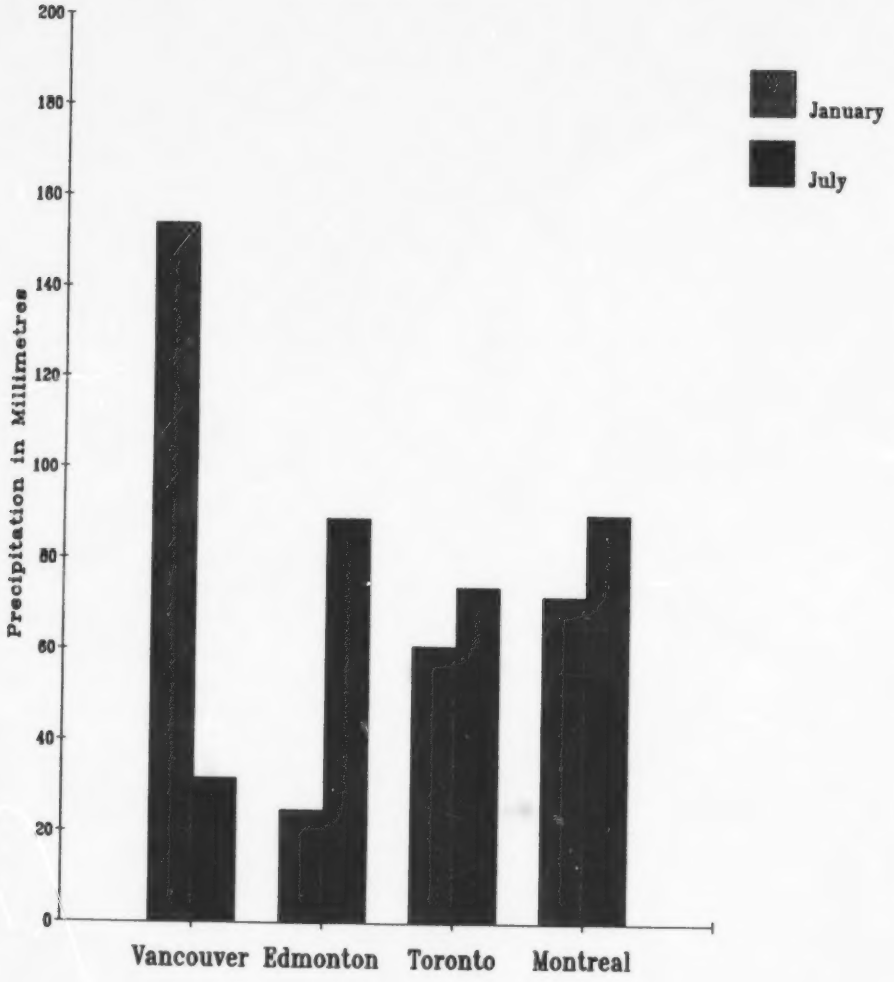
The government recognizes too that social and economic considerations must be balanced. Therefore, British Columbia's environmental controls are pragmatic and fair. Permit applications are dealt with expeditiously, and flexibility is granted in achieving recommended standards. Specific guidelines on air emissions and effluent discharges are provided for different branches of industry. These are comparable to requirements in other provinces.

Figure 8.2.1 Normal January & July Temperatures
Selected Canadian Cities



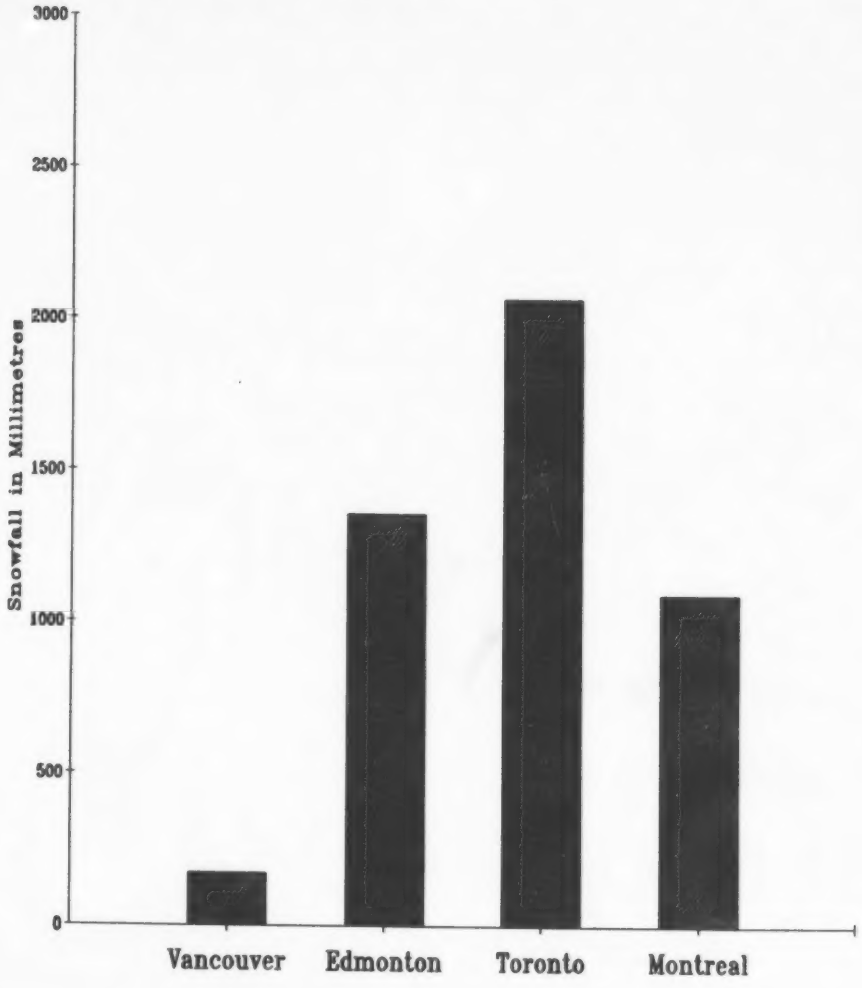
Source: Environment Canada

Figure 8.2.2 Normal January & July Precipitation
Selected Canadian Cities



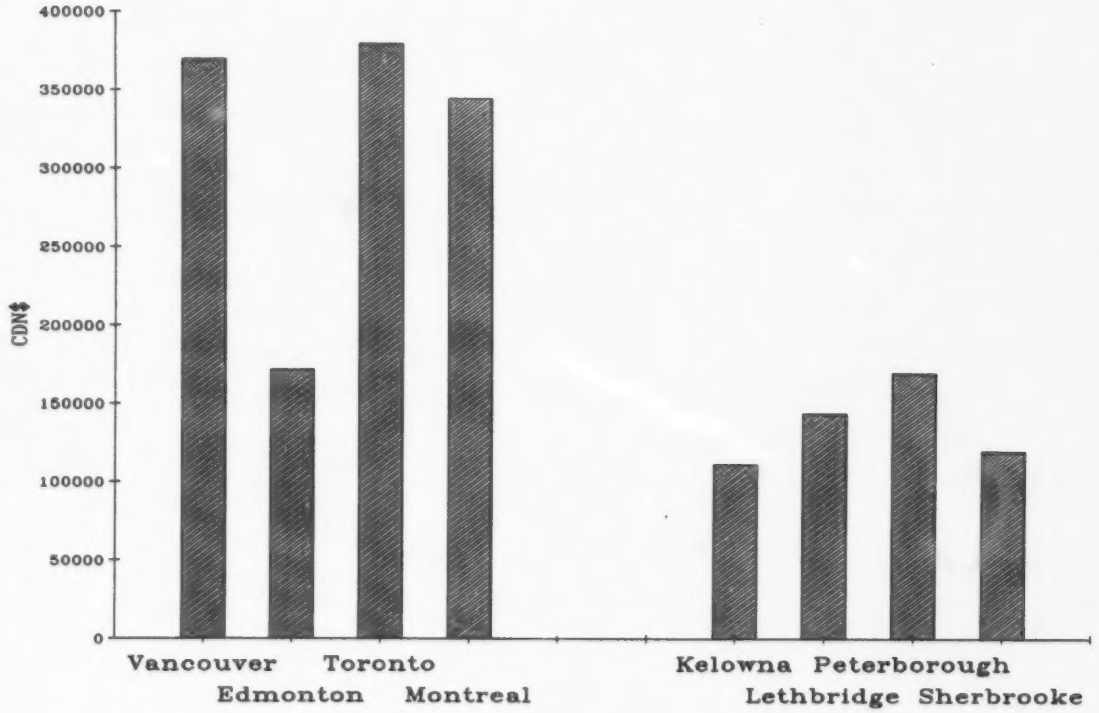
Source: Environment Canada

Figure 8.2.3 Total Snowfall
Selected Canadian Cities



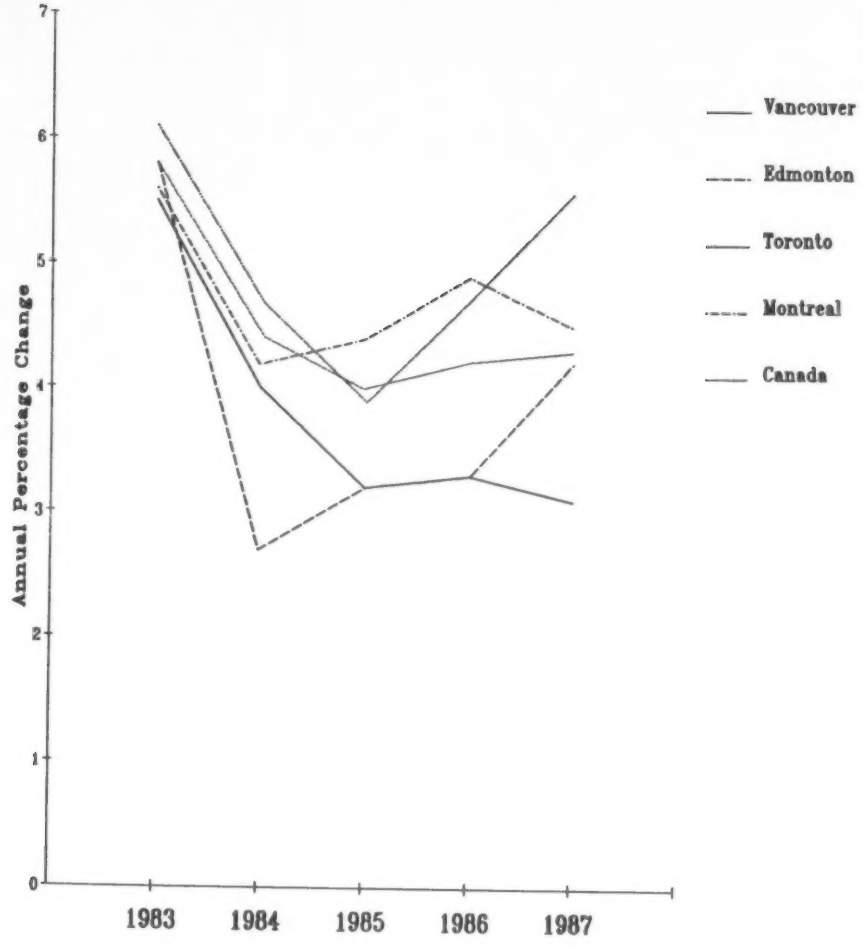
Source: Environment Canada

Figure 8.3 Price of an Executive Detached Home
Selected Canadian Cities 1988



Source: Royal Le Page

Figure 8.4 Consumer Prices – Selected Canadian Cities 1983–87



Source: Statistics Canada

10. INFRASTRUCTURE

British Columbia has an efficient, modern infrastructure, free of potentially disruptive bottlenecks, which meets the needs of a dynamic economy. The quality and flexibility of the province's transportation systems, industrial facilities, education and training institutions are important factors underlying the economy's ability to adjust to new patterns of production.

Transportation and Communications

Road

British Columbia's well-maintained, all-weather highway system permits efficient long distance trucking within the province and provides connections with interprovincial and U.S interstate routes. Reciprocity agreements on truck licensing give British Columbia truck operators access to any domestic or U.S. destination. Canada-U.S. border crossings are handled routinely and expeditiously. Congestion at border points is not a problem in British Columbia.

Rail

Major rail lines link British Columbia's industrial centres to other Canadian terminal points. Five U.S. rail lines serve the province directly or on interchanges at the Canada-U.S. border. Rail border crossings present no logistical or administrative problems. Freight transfer is handled efficiently through computerized traffic management and integrated rail-truck terminals at main rail points. Canada's two national railways (Canadian Pacific and Canadian National) and B.C. Rail have major on-going investment programs to maintain and upgrade their rail systems in British Columbia.

Ports

British Columbia has an efficient system of ports, all ice-free, and excellent industrial tidewater sites.

Vancouver is Canada's largest port and the second largest on the west coast of the continent in terms of tonnage - over 60 million tonnes in 1987. The port has facilities for bulk cargo, containers, and ocean cruise ships. The recent elimination of restrictive work practices affecting the handling of containers has increased Vancouver's capacity and competitiveness in container trade. A major five year program of public and private investment to expand and upgrade the port's facilities is underway.

8.1 British Columbia
Climatic Regions

MEAN DAILY TEMPERATURE (°C)–JANUARY

- Greater than 5°
- 5° - 0°
- 0° - –5°
- –5 - –10°
- –10° - –15°
- –15° - –20°
- Less than –20°

MEAN DAILY TEMPERATURE (°C)–JULY

- Greater than 22°
- 20° - 22°
- 18° - 20°
- 16° - 18°
- 14° - 16°
- Less than 14°

MEAN ANNUAL PRECIPITATION

- Less than 30cm
- 30 - 40 cm
- 40 - 50 cm
- 50 - 75 cm
- 75 - 100 cm
- 100 - 150 cm
- 150 - 250 cm
- 250 - 350 cm
- Greater than 350 cm

Prince Rupert is the province's second major deep water port, mainly handling bulk commodities - coal, wheat, and forest products. There are twenty two subsidiary deep water ports serving coastal communities and resource processing industries.

Air

International airlines and Canada's three major domestic carriers provide scheduled passenger, charter, and freight services through Vancouver and Victoria International Airports, linking the province to major North American, Asian, and European centres. There are regular scheduled inter-city scheduled services within the province, including STOL and all-weather helicopter service between Vancouver and Victoria.

Vancouver International Airport handles the largest volume of marine-air cargo on the North American west coast. Transport Canada is investing in new loading equipment at the airport to increase freight handling capacity for internodal traffic. The system will accommodate passenger-freight combination jumbo jets.

Telecommunications

British Columbia is integrated into Canada's superb telecommunications system which ranks among the world's best. Industrial and commercial users in the province have access to a network of voice, data, and text transmission using satellite and microwave systems providing world wide links.

Industrial Facilities

Serviced and unserviced land is available in communities throughout British Columbia. Multiple tenant industrial parks offering a high level of services are located in the province's main industrial centres, adjacent to principal transportation corridors.

Industrial land in Vancouver is comparatively expensive, due to physical supply constraints. Land prices outside of the metropolitan area are generally comparable with Ontario and Quebec. Vancouver has a moderate supply of vacant industrial space for sale or lease, and building costs compare favourably with Toronto and Montreal (Table 10.1).

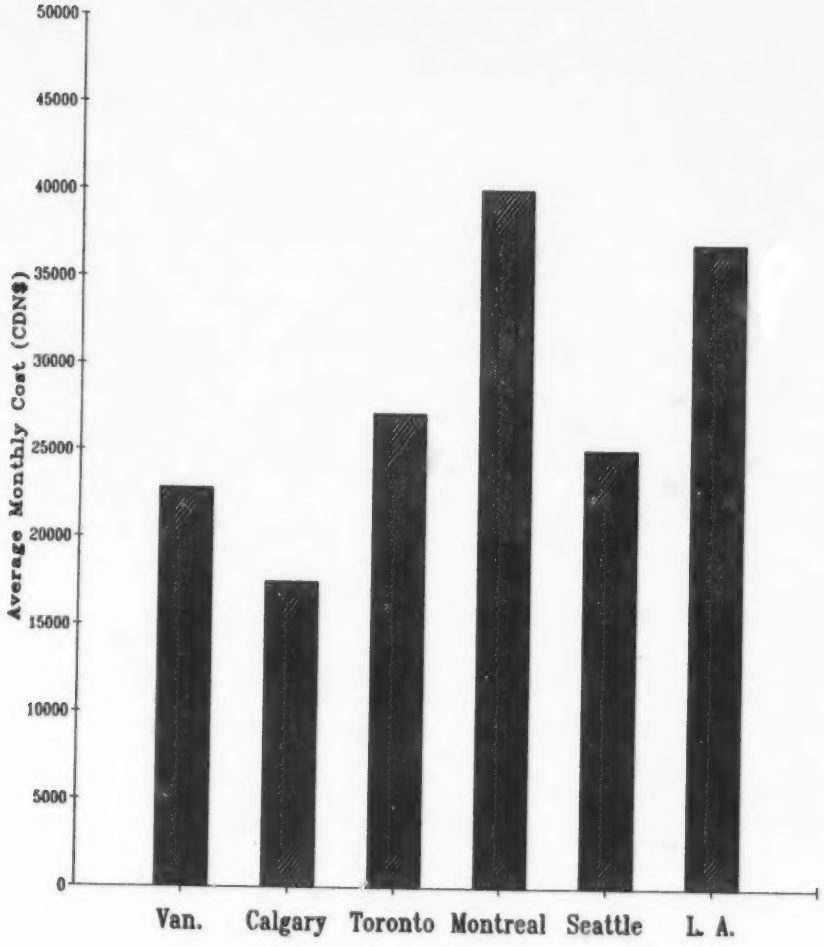
Table 10.1 Industrial Facilities in Major Canadian Centres

	Vancouver	Toronto	Montreal
Industrial rents ($/sq.ft)	4.25	3.25-5	3.5-4.5
Vacant space (sq.ft. millions p.a.)	2.6	16	15
Absorption rate (sq.ft. millions)	.7	8	2
Serviced industrial land			
Price per acre ($'000)/Supply			
Central area	350-650 Limited	225-600 Limited	150-200 Limited
Fringe	90-200 Considerable	90-275 Adequate	100-150 Adequate
Building costs ($/sq.ft)1	36	39.5	36.5

1 Standard steel frame building of average quality

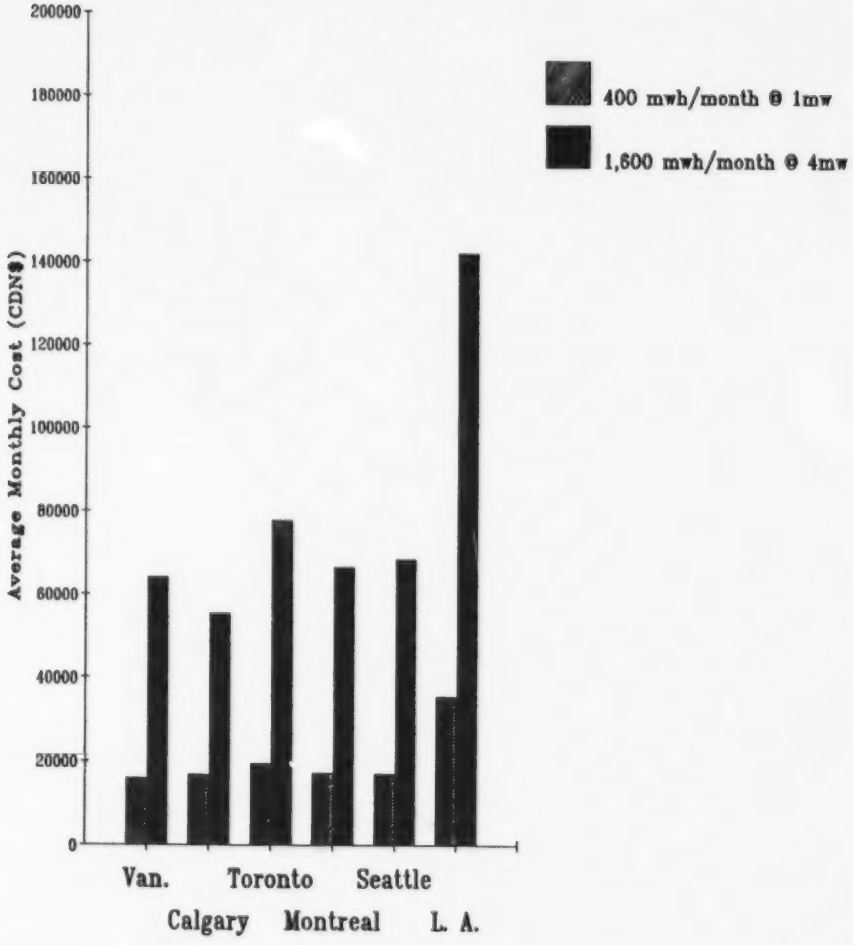
Source: Royal Le Page (1988), except 1: Marshall Swift Valuation Services (1988).

Figure 10.2 Natural Gas Costs – Selected Cities 1988
(110,000 Gigajoules p.a.)



Source: BC Ministry of Regional Development survey of utilities

Figure 10.3 Industrial Electricity Costs
Selected Cities 1988



Source: BC Ministry of Regional Development/BC Hydro

Multi-tenant facilities for high technology firms and private research establishments are available in the provincial government's "Discovery Parks" which neighbour the three university campuses and the British Columbia Institute of Technology. The scientific, engineering, and technical capabilities in these institutions are an important resource for industry.

Energy Utilities

British Columbia is a major producer of hydroelectricity and natural gas. Cheap energy for industry over the long term is assured.

Industrial consumers of natural gas enjoy the lowest prices in the Pacific Coast region, and pay significantly less than consumers in Eastern Canada. A firm in Los Angeles, California using 110,000 gigajoules annually would pay over 60 per cent more than an equivalent Vancouver consumer. The cost in Toronto would be about 20 per cent higher (Figure 10.2). Natural gas marketing is deregulated in British Columbia, allowing industrial customers to contract directly with the utility companies. Large users can negotiate substantial discounts.

Electricity users also enjoy a significant cost advantage. Electricity costs for industrial customers depend on their peak demand and actual use. An industrial user in Los Angeles with a peak demand of 1,000 kw and consumption of 400,000 kwh per month would pay more than twice as much as a comparable Vancouver firm. A Toronto-based manufacturer would pay about 22 per cent more (Figure 10.3).

Higher Education, Training, and Research

British Columbia's infrastructure for higher education and training includes three public universities, four vocational institutes, and fifteen community colleges. The provincial government's Open Learning Institute and Knowledge Network form an innovative "distance learning" system offering university, vocational, and continuing education programs throughout British Columbia. These institutions provide highly qualified graduates in a multitude of disciplines to industry.

The province's three universities collaborate actively in R & D with private industry and have many patents and commercial products to their credit.

The University of British Columbia in Vancouver, Canada's second largest english language university, excels in electrical engineering, forestry, oceanography, computer science, applied physics, bio-genetics, metallurgy, pharmaceutical chemistry, and business studies. The University's Asian Studies Centre is a multi-disciplinary institution which reflects British Columbia's close commercial and cultural ties with the Asia Pacific region.

In addition to the University's own departmental research centres, the campus houses several major independent research institutions: the Forintek forestry engineering institute, the Pulp and Paper Research Institute of Canada, and the applied scientific, oceanographic and industrial testing laboratories of B.C. Research. The university's particle accelerator is the world's third largest and produces more types of commercial isotopes than any other facility.

Simon Fraser University in Burnaby has special capabilities in computer science, communications, kinesiology, and pestology. An engineering school was established recently which has attracted highly qualified researchers and teachers. Microtel, one of Canada's top telecommunications firms, has a research facility in the University's "Discovery Park." Microtel has worked as part of a consortium of Pacific Northwest companies, which includes Boeing, Tektronix, and Fluke, working on advanced microchip design.

The University of Victoria has a newly established school of microelectronic and computer engineering, an educational and research priority of the provincial government. The University has close links with the nearby Pacific Forest Research Centre and Institute of Ocean Sciences. The recently founded centre for Asia Pacific Initiatives represents a new resource for business.

The British Columbia Institute of Technology (BCIT) in Burnaby is the province's major technical training institution, providing job-ready graduates to industry. The Institute specializes in engineering technology, health sciences, and business management. High quality training is provided in computer aided design and manufacturing, microelectronics, and robotics. BCIT's Discovery Park has facilities for private research and high technology firms, and a "business incubator" for start-up enterprises.

In summary, the quality of educational and research infrastructure is a key competitive factor in a knowledge-based economy. The government of British Columbia is committed to excellence in fostering the development and application of scientific talent, creativity, and technical skill in its institutions.